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(54) NOVEL p-TERPHENYL COMPOUNDS

(57) The present invention provides a selective suppressor of the IgE production comprising a compound which suppresses the IgE production in a process from a differentiation of a mature B cell into an antibody-producing cell to the production of an antibody and which does not suppress or weakly suppresses the production of IgG, IgM and/or IgA which are produced at the same time, a compound of the formula (I):

$$R^{1}$$
 R^{5} R^{8} R^{9} R^{12} R^{13} R^{13}

wherein R¹ - R¹³ are hydrogen, halogen, lower alkyl, lower alkoxy or the like, X is - O-, -CH₂-, -NR¹⁴- or -S(O)p- and Y is lower alkyl, lower alkenyl or the like, a process for producing the same and a pharmaceutical composition comprising the same.

Description

Technical Field

[0001] The present invention relates to a novel para-terphenyl compound, a process for producing the same, a selective suppressor of the IgE production, an immunosuppressor and an anti-allergic agent.

Background Art

[0002] A serious problem of a transplantation of a tissue or an organ which is frequently performed in recent years is a rejection symptom for excluding a transplanted part after an operation. Prevention of the rejection symptom is very important for a success of the transplantation.

[0003] Various immunosuppressors such as azathioprine, corticoid, Cyclosporin A, Tacrolimus and the like are developed and come into practical use for prevention and a treatment of a rejection symptom against a transplantation of an organ or a tissue or a graft-versus-host reaction which is caused by a bone marrow transplantation. But they are not so satisfactory in view of their effects and side effects.

[0004] Allergic diseases such as atopic dermatitis, allergic rhinitis, bronchial asthma, allergic conjunctivitis and the like globally tend to increase in recent years and become serious problems. The conventional antiinflammatory agents are suppressors of releasing chemical mediators from mast cells, receptor inhibitors of the chemical mediators released, suppressors of allergic inflammation reaction or the like. All of these are agents for symptomatic therapy and are not fundamental therapeutic agents for allergic diseases.

[0005] As an fundamental therapeutic agent for allergic diseases, a suppressor of the IgE antibody production has been expected.

[0006] One of compounds which have a suppressive effect on the IgE production is Suplatast Tosilate (IPD-1151-T). This is reported to act on T cell of type 2 (Th2 cell) to suppress the IL-4 production and to suppress a differentiation of B cells to IgE antibody-producing cells (Jpn. Pharmacol. (1993) 61, 31-39).

[0007] As compounds which directly act on B cells to suppress the IgE antibody production, for example, DSCG (Intal) or Nedcromil sodium which are degranulation inhibitors of mast cells are exemplified. These are reported to inhibit a class-switch of B cells (J. Exp. Med. (1994) 180: 663-671, J. Allergy Clin. Immunol. (1996) 97: 1141-1150). In J. Med. Chem. (1997) 40: 395-407, a compound which directly acts on B cells to suppress the IgE production is described.

[0008] Because immune globulins are necessary for phylaxis and a suppression of immune globulins other than IgE antibody is not preferable, an inhibitor which has a high selectivity to IgE and a potent effect has been desired.

[0009] The compounds which have an antiinflammatory effect and ortho-terphenyl structure are described in JP-A 60-13730, J. Med. Chem.(1996) 39: 1846-1856 and WO96/10012, and the compounds which have the same effect and biphenyl structure are described in JP-B 43-19935, JP-A 62-294650 and WO96/18606.

[0010] The compounds which have para-terphenyl structure are described in Chemical & Pharmaceutical Bulletin, 24 (4), 613-620 (1976), The Journal of Antibiotics, 32 (6), 559-564 (1979) and Agricultural Biological Chemistry, 49 (3), 867-868 (1985) but an immunosuppressive or antiinflammatory effect of these compounds is not described at all.

40 Disclosure of Invention

[0011] An object of the present invention is to provide a selective suppressor of the IgE production, an immunosuppressor, and/or an anti-allergic agent which has a potent suppressive effect on the IgE production, an immunosuppressive effect and/or an anti-allergic effect. Other object of the present invention is to provide novel compounds which have the above effects and a process for producing the same.

[0012] The present invention provides a selective suppressor of the IgE production, an immunosuppressor and/or an anti-allergic agent comprising a compound which suppresses the IgE production in a process from a differentiation of a mature B cell into an antibody-producing cell to the production of an antibody and which does not suppress or weakly suppresses the production of IgG, IgM and/or IgA which are produced at the same time. The present invention provides a method for selectively suppressing the IgE production or for suppressing an immune reaction or a method for treating and/or preventing allergic diseases comprising administering the compound. In another embodiment, the present invention provides use of the compound for the manufacture of a medicament for selectively suppressing the IgE production, suppressing the immune reaction or treating and/or preventing allergic diseases.

[0013] The present invention provides a compound of the formula (I) as an example of the compounds which has the above effects:

$$R^{1}$$
 R^{4} R^{5} R^{8} R^{9} R^{12} R^{13} R^{13}

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wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfonyloxy.

X is -O-, -CH₂-,-NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is - CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or - NR¹⁴-,

R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted,

excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen, all of R⁶, R⁷, R⁸ and R⁹ are halogen and all of R²-R¹³ are hydrogen, halogen or cyano,

provided that R^1 is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R^2 , R^3 , R^4 , R^5 and R^{12} are hydrogen, or R^{13} is not hydrogen or halogen when R^6 , R^7 , R^8 and R^9 are all simultaneously hydrogen, and further provided that R^1 is not methyl or acetyloxy, R^{13} is not hydrogen, optionally substituted lower alkoxycarbonyl or optionally substituted carbamoyl, or - X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen,

and excluding a compound of the formula (I'):

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wherein R1' is hydrogen or hydroxy and R13' is hydroxy or methoxy, pharmaceutically acceptable salt, hydrate or prodrug thereof.

[0014] The present invention provides a pharmaceutical composition, more specifically a selective suppressor of the IgE production, an immunosuppressor or an anti-allergic agent, comprising the compound (I), pharmaceutically acceptable salt, hydrate or prodrug thereof.

[0015] The present invention provides a selective suppressor of the IgE production, an immunosuppressor and/or an anti-allergic agent comprising a compound of the formula (I"):

$$R^{2}$$
 R^{3} R^{6} R^{7} R^{10} R^{11} $X-Y$ (I")

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wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfonyloxy.

X is -O-, - CH_2 -, - NR^{14} - wherein R^{14} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkyl, optionally substituted acyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is - CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or - NR¹⁴,

R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or optionally substituted arylsulfonyl and which may optionally be substituted, excluding a compound of the formula (I'):

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wherein R^{1} is hydrogen or hydroxy and R^{13} is hydroxy or methoxy, pharmaceutically acceptable salt, hydrate or prodrug thereof.

[0016] The present invention provides a method for selectively suppressing the IgE production, suppressing an immune reaction or treating or preventing allergic diseases comprising administering the compound (I) or (I"). In another embodiment, the present invention provides use of the compound (I) or (I") for manufacturing of a medicament for selectively suppressing the IgE production, suppressing the immune reaction or treating or preventing allergic diseases.

[0017] In one of the other embodiments, the present invention provides a process for producing a compound of the formula (I'''):

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$$R^{1}$$
 R^{2} R^{3} R^{6} R^{7} R^{10} R^{11} $X-Y$ (I'''') R^{4} R^{5} R^{8} R^{9} R^{12} R^{13}

the compound of the above formula (I) or (I'), pharmaceutically acceptable salt or hydrate thereof

wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkoxy, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfonyloxy.

X is -O-, -CH₂-, -NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(o)p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is - CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or - NR¹⁴,

R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted arylsulfonyl, and which may optionally be substituted,

excluding a compound wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen, all of R⁶, R⁷, R⁸ and R⁹ are halogen and all of R²-R¹³ are hydrogen, halogen or cyano,

provided that R¹ is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R², R³, R⁴, R⁵ and R¹² are hydrogen or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are all simultaneously hydrogen, and further provided that R¹ is not methyl or acetyloxy, R¹³ is not hydrogen, optionally substituted lower alkoxycarbonyl or optionally substituted carbamoyl or - X-Y is not methoxy when at least one of R⁶, R⁷, R⁸ and R⁹ is a substituent other than hydrogen, pharmaceutically acceptable salt or hydrate thereof, which comprises reacting a compound of the formula (II):

$$Z \xrightarrow{R^{10}} R^{11}$$
 $X - Y \quad (jj)$

with a compound of the formula (III):

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wherein, in the formulas (II) and (III), R¹ - R¹³, X and Y are the same as defined in the above formula (I), either of A and Z is dihydroxyborane, di(lower)alkoxyborane, di(lower)alkylborane,

$$OB-$$
 or $OB-$

and the other is halogen or -OSO₂(C_qF_{2q+1})- wherein q is an integer of 0 to 4,

or reacting a compound of the formula (II'):

$$R^1$$
 R^3 R^5 R^5

with a compound of the formula (III'):

$$A = \begin{bmatrix} A^6 & A^7 & A^{10} & A^{11} \\ A & & & & & \\ A^8 & A^9 & A^{12} & A^{13} \end{bmatrix}$$
 (III')

wherein, in the formulas (II') and (III'), R¹ - R¹³, X and Y are the same as defined in the above formula (I) and A and Z are the same as defined in the above formulas (II) and (III). As another process, the present invention provides a process for producing the compound of the above formula (I"), (I) or (I'), pharmaceutically acceptable salt or hydrate thereof comprising the reaction of a compound of the formula (IV):

$$A^{1} \longrightarrow A^{2} \quad (IV)$$

with a compound of the formula (V):

wherein, in the formulas (IV) and (V), R^1 - R^9 are the same as defined in the above formula (I), Z^1 is the same as Z defined in the above formula (II), A^1 and A^2 are each independently the same as A defined in the above formula (III) and the reactivity of A^1 is higher than or equal to that of A^2 , followed by the reaction with a compound of the formula (VI):

$$Z^2 \longrightarrow X-Y \quad (VI)$$
 $R^{12} \quad R^{13}$

wherein R^{10} - R^{13} , X and Y are the same as defined in the above formula (I) and Z^2 is the same as Z defined in the above formula (II) and a process for producing the compound of the above formula (I''), (I) or (I'), pharmaceutically acceptable salt, hydrate thereof comprising the reaction of a compound of the formula (IV'):

wherein R^6 - R^9 is the same as defined in the above formula (I), A^1 and A^2 are each independently the same as A defined in the above formula (III) and the reactivity of A^2 is higher than or equal to that of A^1 , with a compound of the above formula (VI), followed by the reaction with a compound of the above formula (V).

Brief Description of the Drawings

[0018]

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Figure 1 shows an antibody production-suppressive effect on human peripheral lymphocytes of the compound (I-839) of the present invention. The ordinate represents a percentage of the amount of antibodies to that of antibodies which are produced in the absence of the compound. The abscissa represents a concentration of the compound.

Figure 2 shows an antibody production-suppressive effect on human peripheral lymphocytes of the compound No. 36. The ordinate represents a percentage of the amount of antibodies to that of antibodies which are produced in the absence of the compound. The abscissa represents a concentration of the compound.

Figure 3 shows an antibody production-suppressive effect on mouse spleen lymphocytes of the compound (I-967) of the present invention. The ordinate represents a percentage of the amount of antibodies to that of antibodies which are produced in the absence of the compound. The abscissa represents a concentration of the compound. Figure 4 shows a suppressive effect of the compound (I-963) of the present invention for an infiltration of inflammatory cells to irrigation water of pulmonary alveolus by an antigen stimulation on mice. The ordinate represents the number of inflammatory cells and the abscissa represents the number of total inflammatory cells, the number of macrophages, the number of eosinophils and the number of neutrophils. The white column represents a group inhaling saline instead of ovalbumin, the black column represents a group inhaling an antigen to cause inflammation and without administration of any compound of the present invention, and the gray column represents a group inhaling an antigen to cause inflammation with administration of the compound of the present invention.

Best Mode for Carrying Out the Invention

[0019] In the present specification, the term "halogen" includes fluorine, chlorine, bromine and iodine. Fluorine or chlorine is preferable. The halogen in the term "halogeno(lower)alkyl", "halogeno(lower)alkenyl" and "halogenoaryl" is the same as above.

[0020] The term "lower alkyl" represents straight or branched chain alkyl having 1 to 10 carbon atoms, preferably 1 to 8 carbon atoms, more preferably 1 to 6 carbon atoms and most preferably 1 to 4 carbon atoms. For example, included are methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, isopentyl, neopentyl, hexyl, isoheptyl, n-octyl, isooctyl, n-nonyl, n-decyl and the like.

[0021] As substituents of the "optionally substituted lower alkyl" in R¹ - R¹³, R¹⁴ and R¹⁵ exemplified are halogen; hydroxy; lower alkoxy optionally substituted with lower alkoxy; carboxy; lower alkoxycarbonyl; acyloxy and the like and the lower alkyl may be substituted with one or more of these substituents at any possible positions.

[0022] As substituents for "optionally substituted lower alkyl" in Y exemplified are halogen; hydroxy; carboxy; lower alkoxycarbonyl; lower alkoxy optionally substituted with lower alkoxy; acyl; acyloxy; amino optionally substituted with hydroxy, lower alkoxy, carboxy(lower)alkoxy, aryl(lower)alkoxy or heterocyclyl; hydrazono optionally substituted with carbamoyl or lower alkoxycarbonyl; cycloalkyl optionally substituted with lower alkyl; cyano; carbamoyl optionally substituted with lower alkyl; cyano; thiocarbamoyl optionally substituted with lower alkyl;



wherein ring A represents cycloalkyl or heterocyclyl;

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aryl optionally substituted with lower alkyl, halogeno(lower)alkyl, carboxy(lower)alkyl, lower alkoxycarbonyl(lower)alkyl, halogen, hydroxy, lower alkoxy, carboxy, lower alkoxycarbonyl, lower alkoxycarbonyl, acyloxy, nitro, cyano, amino, lower alkoxycarbonylamino, acylamino, lower alkylsulfonylamino, lower alkylamino or guanidino; or

heterocyclyl optionally substituted with lower alkyl (optionally substituted with heterocyclyl), halogen, hydroxy, carbon, lower alkoxycarbonyl, lower alkylsulfonyl, lower alkylarylsulfonyl, mercapto, lower alkylthio or heterocyclyl optionally substituted with aryl.

[0023] The alkyl part of "halogeno(lower)alkyl", "hydroxy(lower)alkyl", "carboxy(lower)alkyl", "lower alkoxycarbonyl(lower)alkyl", "lower alkylathio", "lower alkylamino", "lower alkylaulfonyl", "lower alkylaulfonyl", "lower alkylaulfonyl", "lower alkylaulfonyl", "di(lower)alkyloarbamoyl", "di(lower)alkylborane, "lower alkoxy", "carboxy(lower)alkoxy", "aryl(lower)alkoxy", "lower alkoxy(lower)alkoxy", "lower alkoxyaryl" or "di(lower)alkoxyborane" is the same as defined in the above "lower alkyl". As substituents in the case of being "optionally substituted" exemplified are halogen; hydroxy; lower alkoxy; carboxy; lower alkoxycarbonyl; acyloxy; cycloalkyl; aryl optionally substituted with lower alkyl; heterocyclyl and the like. These substituents may substitute at one or more of any possible positions.

[0024] The part of lower alkyl in "lower alkoxycarbonyl" is the same as the above defined "lower alkyl" and substituents for "optionally substituted lower alkoxycarbonyl" are the same as those for the above "optionally substituted lower alkoxy".

[0025] The part of "lower alkoxycarbonyl" in "lower alkoxycarbonyl(lower)alkyl", "lower alkoxycarbonyl(lower)alkenyl" or "lower alkoxycarbonylamino" is the same as the above defined "lower alkoxycarbonyl".

[0026] The term "lower alkenyl" represents straight or branched chain alkenyl having 2 to 10 carbon atoms, preferably 2 to 8 carbon atoms and more preferably 3 to 6 carbon atoms. For example included are vinyl, propenyl, isopropenyl, butenyl, isobutenyl, butadienyl, pentenyl, isopentenyl, pentadienyl, hexenyl, isobexenyl, hexadienyl, heptenyl, octenyl, nonenyl, decenyl and the like and these have one or more double bonds at any possible positions. Substituents for "optionally substituted lower alkenyl" are the same as that for the above "optionally substituted lower alkenyl".

[0027] The part of lower alkenyl in "lower alkoxycarbonyl (lower)alkenyl", "halogeno (lower)alkenyl", "lower alkenyloxy", "lower alkenyloxycarbonyl" or "lower alkenylamino" is the same as the above defined "lower alkenyl".

[0028] Substituents for "optionally substituted lower alkenyloxy" are the same as those for the above "optionally substituted lower alkoxy".

[0029] The term "lower alkynyl" represents straight or branched chain alkynyl having 2 to 10 carbon atoms, preferably 2 to 8 carbon atoms and more preferably 3 to 8 carbon atoms. Specifically, included are ethynyl, propynyl, butynyl, pentynyl, hexynyl, heptynyl, octynyl, nonyl, decynyl and the like. These have one or more triple bonds at any possible positions and may further have a double bond. Substituents for "optionally substituted lower alkynyl" are the same as those for the above "optionally substituted lower alkoxy".

[0030] The term "acyl" represents aliphatic acyl which includes chain acyl having 1 to 10 carbon atoms, preferably 1 to 8 carbon atoms, more preferably 1 to 6 carbon atoms, most preferably 1 to 4 carbon atoms and cyclic acyl having 3 to 8 carbon atoms, preferably 3 to 6 carbon atoms, and aroyl. Specifically, included are formyl, acetyl, propionyl, butyryl, isobutyryl, valeryl, pivaloyl, hexanoyl, acryloyl, propioloyl, methacryloyl, crotonoyl, cyclohexanecarbonyl, benzoyl and the like. Substituents for "optionally substituted acyl" are the same as those for "optionally substituted lower alkoxy" and aroyl may further be substituted with lower alkyl.

[0031] The part of acyl in "acyloxy" or "acylamino" is the same as the above identified "acyl" and substituents for "optionally substituted acyloxy" are the same as those for the above "optionally substituted acyloxy" are the same as those for the above "optionally substituted acyloxy".

[0032] The term "cycloalkyl" represent cyclic hydrocarbon having 3 to 6 carbon atoms and includes, for example cyclopropyl, cyclobutyl, cyclopentyl cyclohexyl and the like. As substituents for "optionally substituted cycloalkyl" exemplified are lower alkyl, halogen, hydroxy, carboxy, lower alkoxycarbonyl, lower alkoxy, aryl, heterocyclyl and the like and the cycloalkyl may be substituted at any possible positions.

[0033] The term "cycloalkenyl" represents the group having one or more double bonds at any possible positions in the above cycloalkyl and included are, for example, cyclopropenyl, cyclobutenyl, cyclopentenyl, cyclohexenyl and the like. Substituents for "optionally substituted cycloalkenyl" are the same as those for the above identified

"cycloalky!".

[0034] The term "optionally substituted amino" includes substituted amino and unsubstituted amino and substituents exemplified are lower all optionally substituted with lower alkylaryl etc.; lower alkenyl optionally substituted with halogen; lower alkylaulfonyl; lower alkylarylsulfonyl; lower alkoxycarbonyl; sulfamoyl; acyl optionally substituted with halogen; carbamoyl and the like.

[0035] The term "optionally substituted carbamoyl" includes substituted carbamoyl and unsubstituted carbamoyl and substituted substituted carbamoyl; acyl optionally substituted with halogen; amino and the like.

[0036] The term "optionally substituted sulfamoyl" includes substituted sulfamoyl and unsubstituted sulfamoyl and substituents exemplified are lower alkyl optionally substituted with aryl; lower alkenyl and the like.

[0037] The term "aryl" includes phenyl, naphthyl, anthryl, indenyl, phenanthryl and the like. Substituents for "optionally substituted aryl" exemplified are lower alkyl optionally substituted with halogen or carboxy; hydroxy; halogen; lower alkoxy; lower acyloxy; carboxy; lower alkoxycarbonyl; lower alkenyloxycarbonyl; amino optionally substituted with lower alkyl, lower alkylsulfonyl, lower alkoxycarbonyl or acyl; guanidino; nitro; aryl; heterocyclyl and the like and "optionally substituted aryl", may be substituted with one or more of these substituents at any possible positions.

[0038] The part of aryl in "lower alkylaryl", "halogenoaryl", "lower alkoxyaryl", "arylsulfonyl", "aryl(lower)alkoxy", "lower alkylarylsulfonyl", "heterocyclyl substituted with aryl", "aroyl" or "aroyloxy" is the same as the above "aryl" and the substitutents for "optionally substituted" are also the same as those for in the above "optionally substituted aryl".

[0039] The term "heterocyclyl" represents a heterocyclic group which contains one or more of hetero atoms arbitrarily selected from a group of O, S and N and exemplified are 5-or 6- membered aromatic heterocyclyl such as pyrrolyl, imidazolyl, pyrazolyl, pyridyl, pyridazinyl. pyrmidinyl, pyrazinyl, triazolyl, triazinyl, isoxazolyl, oxazolyl, oxadiazolyl, isothiazolyl, thiazolyl, thiaziazolyl, furyl, thienyl etc., condensed aromatic heterocyclyl such as indolyl, carbazolyl, acridinyl, benzimidazolyl, indazolyl, indolizinyl, quinolyl, isoquinolyl, cinnolinyl, phthalazinyl, quinazolinyl, naphthyridinyl, quinoxalinyl, purinyl, pteridinyl, benzisoxazolyl, benzoxazolyl, benzoxadiazolyl, benzisothiazolyl, benzothiazolyl, benzothiazoly aziazolyl, benzofuryl, benzothienyl, benzotriazolyl etc., and alicyclic heterocyclyl such as dioxanyl, thiiranyl, oxiranyl, oxathioranyl, azetidinyl, thianyl, pyrrolidinyl, pyrrolinyl, imidazolidinyl, imidazolinyl, pyrazolidinyl, pyrazolinyl, piperidyl, piperazinyl, morpholinyl etc. As substituents for "optionally substituted heterocyclyl" exemplified are lower alkyl, lower alkenyl, hydroxy, halogen, carboxy, lower alkoxycarbonyl, lower alkoxy, mercapto, lower alkylthio, lower alkylsulfonyl, aryl, heterocyclyl and the like and the heterocyclyl may be substituted with one or more of these substituents at any possible positions. The part of heterocycle in "heterocyclyl substituted with aryl" is the same as the above "heterocyclyl". [0040] The term "5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ and may optionally be substituted" represents a 5- or 6-membered ring which is formed by R1 and R4, R1 and R2, R2 and R3, R4 and R5, R6 and R7, R8 and R9, R10 and R11, R12 and R13, R11 and -X-Y, or R13 and -X-Y with the two carbon atoms constituting phenyl to which the above substituents are attached. For example, the above substituents taken together form -(CH₂)₃-, -CH=N-S-, -O-CH=N-, -N=CH-O-, -O-N=CH-, -CH=N-O-, -NR¹⁵-CH=N-, -N=CH-NR¹⁵-, -NR¹⁵-N=CH-, -CH=N-NR¹⁵-, -NR¹⁵-N=CH-, -N N=CH-CH=CH-, -CH=CH-CH=N-, -N=N-CH=CH-, -CH=CH-N=N-, -N=CH-N=CH-, -CH=N-CH=N-, -N=CH-CH=N- (m is 1 or 2 and n is 2 or 3) or the like and further these and the two carbon atoms constituting phenyl taken together form a 5-or 6- membered ring. These rings may be substituted with one or more of hydroxy; halogen; lower alkyl optionally substituted with lower alkoxycarbonyl or heterocyclyl; lower alkenyl optionally substituted with halogen; lower alkyliden optionally substituted with halogen; or the like. The substituents of "5- or 6-membered ring which may contain one or more of O or NR¹⁵ and may optionally be substituted", "5-or 6- membered ring which contains one or more of O or NR¹⁵ and may optionally be substituted" and "5-or 6- membered ring which contains one or more of O and may optionally be

[0041] The term "lower alkylidene" represents straight or branched alkylidene having 1 to 6 carbon atoms, preferably 1 to 4 carbon atoms, more preferably 1 to 3 carbon atoms and includes, for example, methylene, ethylidene, isopropylidene, vinylidene, methylidyne and the like.

substituted" are the same as the above unless otherwise defined.

[0042] The term "all of R^2 - R^{13} are hydrogen, halogen or cyano" represents, for example, the case that R^2 - R^{13} are the same or different and hydrogen, halogen or cyano. For example, included are the case that all of R^2 - R^{13} are hydrogen, the case that all of them are halogen, the case that some are halogen and the others are hydrogen, the case that some are cyano and the others are hydrogen and the like.

[0043] The term "compound (I)", "compound (I")" or "compound (I")" also includes formable and pharmaceutically acceptable salts of each compounds. As "the pharmaceutically acceptable salt", exemplified are salts with mineral acid such as hydrochloric acid, sulfuric acid, nitric acid, phosphoric acid, hydrofluoric acid, hydrobromic acid and the like; salts with organic acids such as formic acid, acetic acid, tartaric acid, lactic acid, citric acid, fumaric acid, maleic acid,

succinic acid and the like; salts with organic bases such as ammonium, trimethylammonium, triethylammonium and the like; salts with alkaline metals such as sodium, potassium and the like and salts with alkaline earth metals such as calcium, magnesium and the like.

[0044] The compound of the present invention includes hydrates and all of stereoisomers, for example, atropisomers etc. thereof.

[0045] The compound of the present invention includes prodrugs thereof. The term "prodrug" means a group of compounds which are easily changeable to the compounds (I) or (I") which have activities in living bodies. The prodrug may be prepared by usual reactions. As usual methods for producing predrugs exemplified is the substitution of hydroxy by acyloxy substituted with carboxy, sulfo, amino, lower alkylamino or the like, phosphonoxy or the like. The substitution of hydroxy attached to R¹ by -OCOCH₂COOH, -OCOCH=CHCOOH, -OCOCH₂SO₃H, -OPO₃H₂, -OCOCH₂NMe₂, -OCO-Pyr (Pyr is pyridine) or the like is preferable.

[0046] In the present specification, the term "compound (I)" represents a group comprising novel compounds excluding the compound (I), the term "compound (I')" represents a group comprising the compound (I) and known compounds and the term "compound (I")" represents a group comprising the compound (I) and the compound (I').

[0047] All of the compounds (I) and (I") have a suppressive effect on the IgE production, an immunosuppressive effect and/or an anti-allergic effect and the following compounds are specifically preferable.

[0048] In the formulas (I) and (I"),

1) a compound wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkylthio, optionally substituted lower alkylthio, optionally substituted lower alkylthio, optionally substituted acroamoyl or optionally substituted sulfamoyl,

X is -O-, -CH₂-,-NR¹⁴- wherein R¹⁴ is hydrogen or optionally substituted lower alkyl, or -S(O)p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl or optionally substituted cycloalkenyl, and

 R^1 and R^4 , R^1 and R^2 , R^8 and R^9 , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O or NR^{15} ,

2) a compound wherein R¹ is hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkoxy, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, lower alkylsulfonyl, formyl, optionally substituted amino, lower alkylsulfinyl, acyloxy, nitro, cyano, optionally substituted sulfamoyl or heterocyclyl,

R² is hydrogen, hydroxy, halogen, optionally substituted lower alkyl or optionally substituted lower alkylsulfonyloxy.

R³ is hydrogen, hydroxy, halogen or optionally substituted lower alkoxy.

R⁴ is hydrogen, optionally substituted lower alkyl, halogen, optionally substituted lower alkoxy, nitro or optionally substituted amino,

R⁵ is hydrogen, optionally substituted lower alkoxy, lower alkoxycarbonyl or carboxy,

R⁶ is hydrogen, halogen, optionally substituted lower alkyl, carboxy, lower alkoxycarbonyl, nitro, formyl, amino or lower alkylsulfonyloxy,

R⁷ and R⁸ are each independently hydrogen, halogen, optionally substituted lower alkyl, optionally substituted lower alkoxy, formyl or optionally substituted amino,

R⁹ is hydrogen, hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, optionally substituted carbamoyl or optionally substituted amino,

R¹⁰ is hydrogen or lower alkoxy.

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R¹¹ is hydrogen, halogen, optionally substituted lower alkyl, carboxy, lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, nitro or amino, R¹² is hydrogen.

R¹³ is hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyloxy, optionally substituted acyloxy, optionally substituted lower alkylsulfonyloxy, formyl, nitro or optionally substituted amino, and further R¹³ may be hydrogen in the formula (I"),

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl or optionally substituted cycloalkenyl and Y may be optionally substituted lower

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lower alkynyl, optionally substituted cycl koxycarbonyl or optionally substituted ac r may form a 5- or 6-membered ring which above and which may optionally be substituted with cyl; cycloalkenyl; cyano; imino optionally er)alkoxy or heterocyclyl; hydrazono optio optionally substituted with lower alkyl or a ly substituted with amino (optionally substituted with amino (optionally substituted, nitro, acyloxy, lower alkyl (optionally substoxycarbonyl, lower alkenyloxycarbonyl or kyl;

er alkenyl optionally substituted with halog erocyclyl; lower alkynyl optionally substitut),

re preferably Y is lower alkyl optionally sul laryl, lower alkoxyaryl, heterocyclyl or acyl l (hereinafter referred to as "Y is Y3"),

st preferably Y is isopropyl, ethoxycarbonyl henylmethyl, methoxyphenylmethyl, pyridy hydroxymethylbutenyl, pentenyl, methylp mopropenyl, dibromopropenyl, fluoropropenylpropenyl (hereinafter referred to as "Y is

ompound wherein R1 is R1-2, R2 is R2-1, ⁹ is R9-2, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² R⁴, R⁸ and R⁹, or R¹³ and - X-Y taken tog O or NR15 wherein R15 is the same as def ompound wherein R1 is R1-2, R2 is R2-1, R ⁹ is R9-1, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² R4, R8 and R9, or R13 and - X-Y taken tog O or NR¹⁵ wherein R¹⁵ is the same as def ompound wherein R1 is R1-2, R2 is R2-1, R 19 is R9-1, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² R4, R8 and R9 or R13 and - X-Y taken toge O or NR15 wherein R15 is the same as def ompound wherein R1 is R1-1, R2 is R2-1, F 19 is R9-2, R10 is R10-1, R11 is R11-1, R12 i R⁴, R⁸and R⁹, or R¹³ and-X-Y taken togel O or NR¹⁵ wherein R¹⁵ is the same as def ompound wherein R1 is R1-1, R2 is R2-1, F 19 is R9-2, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² i R4, R8 and R9, or R13 and - X-Y taken toge O or NR15 wherein R15 is the same as defi ompound wherein R1 is R1-1, R2 is R2-1, R 1⁹ is R9-1, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² R⁴, R⁸ and R⁹ or R¹³ and - X-Y taken toge O or NR15 wherein R15 is the same as defi ompound wherein R1 is R1-2, R2 is R2-1, R ⁸ is R9-2, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² R4, R8 and R9, or R13 and - X-Y taken tog f O or NR¹⁵ wherein R¹⁵ is the same as def ompound wherein R1 is R1-2, R2 is R2-1, R ₹⁹ is R9-2, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² R4, R8 and R9, or R13 and - X-Y taken toge f O or NR15 wherein R15 is the same as defi ompound wherein R1 is R1-2, R2 is R2-1, R

alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl w $-NR^{14}$ - and

 R^1 and R^2 , R^1 and R^4 , R^8 and R^9 , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5- ϵ ring which contains one or more of O or NR^{15} wherein R^{15} is the same as defined above and whally be substituted,

3) a compound wherein R¹ is hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkoxy, optionally substituted lower alkenyloxy, optionally substituted lower alkylsulfonyloxy, lower alkylsulfonyl, fo substituted amino, lower alkylsulfinyl, acyloxy, nitro, cyano, optionally substituted sulfamoyl or heter after referred to as "R¹ is R1-1") or R¹ and R² or R⁴ taken together form a 5- or 6-membered ring one or more of O or NR¹⁵ wherein R¹⁵ is the same as defined above and which may optionally be

preferably R¹ is hydrogen, hydroxy, halogen, optionally substituted lower alkoxy, optionally substituted lower alkylsulfonyloxy, optionally substituted amino, optionally famoyl (hereinafter referred to as "R¹ is R1-2"), or R¹ and R² or R⁴ taken together form a 5-or 6-which contains one or more of O or NR¹⁵ wherein R¹⁵ is the same as defined above and which be substituted,

more preferably, R^1 is hydrogen, hydroxy, halogen, lower alkoxy(lower)alkoxy, aryl(lower)alkox loxy, lower alkylsulfonyloxy, amino, lower alkylamino or lower alkenylamino (hereinafter referred 3"), or R^1 and R^2 or R^4 taken together form a 5- or 6-membered ring which contains one or mc wherein R^{15} is the same as defined above and which may optionally be substituted,

most preferably, R¹ is hydrogen, hydroxy, chlorine, fluorine, methoxymethyloxy, benzyloxy, 3-n loxy, methanesulfonyloxy, amino, dimethylamino or 3-methyl-2-butenylamino (hereinafter refered R1-4"), or R¹ and R² or R⁴ taken together form -OCH₂O- or -CH=CH-NH-,

4) a compound wherein R² is hydrogen, hydroxy, halogen, lower alkyl or optionally substituted low loxy (hereinafter referred to as "R² is R2-1") or R¹ and R² taken together form a 5- or 6-membered. tains one or more of O or NR¹⁵ wherein R¹⁵ is the same as defined above and which may optionally preferably R² is hydrogen, halogen or alkyl having 1 to 3 carbon atoms (hereinafter referred to as 5) a compound wherein R³ is hydrogen, hydroxy, halogen or optionally substituted lower alk referred to as "R³ is R3-1"), preferably R³ is hydrogen or fluorine (hereinafter referred to as "R³).

6) a compound wherein R⁴ is hydrogen, optionally substituted lower alkyl, halogen, optionally s alkoxy, nitro or optionally substituted amino (hereinafter referred to as "R⁴ is R4-1") or R⁴ and R may form a 5-or 6-membered ring which contains one or more of O or NR¹⁵ wherein R¹⁵ is the s above and which may optionally be substituted,

preferably R^4 is hydrogen, lower alkyl, lower alkoxy or halogen (hereinafter referred to as "R 4 and R 1 taken together may form -OCH $_2$ O-,

7) a compound wherein R^5 is hydrogen, optionally substituted lower alkoxy, lower alkoxycarbonyl or inafter referred to as " R^5 is R5-1"), preferably R^5 is hydrogen, lower alkoxycarbonyl or carboxy (he to as " R^5 is R5-2"), more preferably R^5 is hydrogen (hereinafter referred to as " R^5 is R5-3"). 8) a compound wherein R^6 is hydrogen, halogen, optionally substituted lower alkyl, carboxy, lowe nitro, formyl, amino or lower alkylsulfonyloxy (hereinafter referred to as " R^6 is R6-1"),

preferably R^6 is hydrogen or lower alkyl or halogen (hereinafter referred to as " R^6 is R6-2"), more preferably R^6 is hydrogen, alkyl having 1 to 3 carbon atoms or halogen (hereinafter ref R6-3").

 a compound wherein R⁷ is hydrogen, halogen, optionally substituted lower alkyl, optionally alkoxy, formyl or optionally substituted amino (hereinafter referred to as "R⁷ is R7-1"),

preferably R⁷ is hydrogen, lower alkyl or lower alkoxy (hereinafter referred to as "R⁷ is R7-2"

10) a compound wherein R^8 is hydrogen, halogen, optionally substituted lower alkyl, optionally alkoxy, formyl or optionally substituted amino (hereinafter referred to as " R^8 is R^8 -1") or R^8 and

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or 6- membered ring which contains one d

^r R⁸ is hydrogen, lower alkyl or lower alkox

nd wherein R⁹ is hydrogen, hydroxy, carbo ptionally substituted lower alkenyl, optional onyloxy, formyl, optionally substituted carbo 9-1") or R⁹ and R⁸ taken together may form may optionally be substituted,

 R⁹ is hydrogen, hydroxy, carboxy, option tionally substituted lower alkenyl, optionally ylsulfonyloxy, formyl, optionally substituted as "R⁹ is R9-2"),

erably R⁹ is hydrogen, hydroxy, lower alkyl oxy(lower)alkoxy, lower alkylsulfonyloxy, di preinafter referred to as "R⁹ is R9-3"),

ferably R⁹ is hydrogen, hydroxy, methyl, sulfonyl, dimethylcarbamoyl, carboxy, metho

nd wherein R¹⁰ is hydrogen or lower alkoxy nereinafter referred to as "R¹⁰ is R10-2"), and wherein R¹¹ is hydrogen, halogen, optio substituted lower alkylsulfonyloxy, formyl, notaken together form a 5- or 6-membered ris s defined above and which may optionally the statement of the stateme

y R¹¹ is hydrogen or halogen (hereinafter re

ind wherein R¹² is hydrogen, ind wherein R¹³ is hydrogen, hydroxy, halog wer alkoxy, optionally substituted lower alke kylsulfonyloxy, formyl, nitro or optionally sub (-Y taken together form a 5- or 6-membered ne as defined above and which may optional

y R¹³ is hydrogen, hydroxy, halogen, carboxy oxy, optionally substituted acyloxy, optionally ad amino (hereinafter referred to as "R¹³ is R rerably R¹³ is hydroxy; halogen; lower alky stionally substituted with lower alkorycarbony gen; aroyloxyl; lower alkylsulfonyloxy; formyl ferably R¹³ is hydroxy, fluorine, methyl, hydronylmethyloxy, methoxymethyloxy, chlorolyloxy, dichloropropenyloxy, ethoxycarbonyl, b rred to as "R¹³ is R13-4"),

and wherein X is -O-, -NR¹⁴- or -S(O)p- wher R¹³ and Y taken together may form a 5-or 6-n is the same as defined above and may option

y X is -O-, -NH-, -NMe- or -SO₂- (hereinafter thereinafter referred to as "X is X3") most pr

und wherein Y is optionally substituted lower

R8-2, R⁹ is R9-1, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² is hydrogen, R¹³ is R13-2, X is X1 and Y is Y2, and R¹ and R⁴, R⁸ and R⁹, or R¹³ and - X-Y taken together may form a 5- or 6-membered ring which con more of O or NR¹⁵ wherein R¹⁵ is the same as defined above and which may optionally be substituted 27) a compound wherein R¹ is R1-1, R² is R2-1, R³ is R3-1, R⁴ is R4-1, R⁵ is R5-1, R⁶ is R6-2, R⁷ is R8-2, R⁹ is R9-2, R¹⁰ is R10-1, R¹¹ is R11-1, R¹² is hydrogen, R¹³ is R13-2, X is X1 and Y is Y2, and R¹ and R⁴, R⁸ and R⁹, or R¹³ and - X-Y taken together may form a 5- or 6-membered ring which con more of O or NR¹⁵ wherein R¹⁵ is the same as defined above and which may optionally be substituted 28) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ is R8-2, R⁹ is R9-2, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-2, X is X2 and Y is Y2, and or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 29) a compound therein R^1 is R1-3, R^2 is R2-2, R^3 is R3-2, R^4 is R4-2, R^3 is R5-2, R^6 is R6-2, R^7 is R8-2, R9 is R9-2, R10 is R10-2, R11 is R11-2, and R1 and R4, or R8 and R9 taken together may form a bered ring which contains one or more of O, 30) a compound wherein R¹ is R1-4, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ is R8-2, R⁹ is R9-2, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-2, X is X2 and Y is Y2, and or R8 and R9 taken together may form -OCH2O-, 31) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ is R8-2, R⁹ is R9-3, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-2, X is X2 and Y is Y2, and or R⁸ and R⁹ taken together may form a 5- or 6-membered ring which contains one or more of O. 32) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ i R8-2, R⁹ is R9-4, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-2, X is X2 and Y is Y2, an or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 33) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ i R8-2, R^9 is R9-2, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-3, X is X2 and Y is Y2, and or R⁸ and R⁹ taken together may form a 5- or 6-membered ring which contains one or more of O, 34) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ is R8-2, R⁹ is R9-2, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-4, X is X2 and Y is Y2, ar or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 35) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ R8-2, R⁹ is R9-2, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-2, X is X2 and Y is Y3, ar or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 36) a compound wherein R¹ is R1-3, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ R8-2, R⁹ is R9-3, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-2, X is X2 and Y is Y2, and or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 37) a compound wherein R¹ is R1-3, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ R8-2, R^9 is R9-2, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-3, X is X2 and Y is Y2, and or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 38) a compound wherein R¹ is R1-3, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ R8-2, R^9 is R9-2, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-2, X is X2 and Y is Y3, a or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 39) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ R8-2. R⁹ is R9-3, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-3, X is X2 and Y is Y2, a or R8 and R9 taken together may form a 5- or 6-membered ring which contains one or more of O, 40) a compound wherein R¹ is R1-2, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-3, R⁷ R8-2, R⁹ is R9-3, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-2, X is X2 and Y is Y3, a or R⁸ and R⁹ taken together may form a 5- or 6-membered ring which contains one or more of O,

41) a compound wherein R^1 is R1-2, R^2 is R2-2, R^3 is R3-2, R^4 is R4-2, R^5 is R5-2, R^6 is R6-2, R^7 R8-2, R^9 is R9-2, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-3, X is X2 and Y is Y3, ε or R^8 and R^9 taken together may form a 5- or 6-membered ring which contains one or more of O,

42) a compound wherein R¹ is R1-3, R² is R2-2, R³ is R3-2, R⁴ is R4-2, R⁵ is R5-2, R⁶ is R6-2, R⁷ R8-2, R⁹ is R9-3, R¹⁰ is R10-2, R¹¹ is R11-2, R¹² is hydrogen, R¹³ is R13-3, X is X2 and Y is Y2, ϵ or R⁸ and R⁹ taken together may form -OCH₂O-,

43) a compound wherein R^1 is R1-3, R^2 is R2-2, R^3 is R3-2, R^4 is R4-2, R^5 is R5-2, R^6 is R6-2, R^6 is R8-2, R^9 is R9-3, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-2, X is X^2 and Y is Y^3 , R^8 and R^9 taken together may form -OCH $_2$ O-,

44) a compound wherein R^1 is R1-3, R^2 is R2-2, R^3 is R3-3, R^4 is R4-2, R^5 is R5-2, R^6 is R6-2, R^6 is R6-2, R^6 is R9-2, R^9 is R9-2, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-3, X is X^2 and Y is Y^3 , or R^8 and R^9 taken together may form -OCH₂O-,

45) a compound wherein R^1 is R1-2, R^2 is R2-2, R^3 is R3-3, R^4 is R4-2, R^5 is R5-3, R^6 is R6-2, R^7 is R7-2, R^8 is R8-2, R^9 is R9-3, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-3, X is X2 and Y is Y3, and R^1 and R^4 , or R^8 and R^9 taken together may form a 5- or 6-membered ring which contain one or more of O,

46) a compound wherein R^1 is R1-3, R^2 is R2-2, R^3 is R3-3, R^4 is R4-2, R^5 is R5-3, R^6 is R6-3, R^7 is R7-2, R^8 is R8-2, R^9 is R9-3, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-3, X is X3 and Y is Y4, and R^1 and R^4 , or R^8 and R^9 taken together may form -OCH₂O-,

47) a compound wherein R^1 is R1-4, R^2 is R2-2, R^3 is R3-3, R^4 is R4-2, R^5 is R5-3, R^6 is R6-3, R^7 is R7-2, R^8 is R8-2, R^9 is R9-4, R^{10} is R10-2, R^{11} is R11-2, R^{12} is hydrogen, R^{13} is R13-4, X is X3 and Y is Y4, R^1 and R^4 taken together may form - OCH_2O - and R^8 and R^9 taken together may form - OCH_2CH_2O -,

48) a compound wherein the benzene ring which is substituted with R1 - R5 is

$$HO \longrightarrow MsO \longrightarrow F \longrightarrow H_2N \longrightarrow Me_2N \longrightarrow F$$
 $HO_2C \longrightarrow F_3C \longrightarrow HN \longrightarrow MeO \longrightarrow CI \longrightarrow CI \longrightarrow HN \longrightarrow MeO \longrightarrow M$

49) a compound wherein the benzene ring which is substituted with R⁶-R⁹ is

50) a compound wherein the benzene ring which is substituted with R¹⁰-R¹³ is

OH, OMS,
$$CO_2H$$
, OH , F , NH_2 , OH

51) a compound wherein Y is $-CH_2CH=CMe_2$, $-(CH_2)_2CH=CMe_2$, $-CH_2CH=CCI_2$, $-CH_2CH=CBr_2$, $-CH_2CH=CF_2$, $-CH_2CH=CHe_2$, $-CH_2CH$

53) a compound wherein at least seven of the substituents of R^1 - R^{13} are hydrogen, preferably at least eight are hydrogen, more preferably at least nine are hydrogen, and their pharmaceutically acceptable salts, their hydrates and their prodrugs.

[0049] A process for producing the compound (I"") is as follows.

5 Process for producing the compound (I"") [Process a]

[0050] The compound (I") can be produced by the reaction of a borane compound of the formula (II) and (II') coupled with a biphenyl derivative of the formula (III) and (III') respectively, as shown below.

wherein R¹ - R¹³, X and Y are the same as defined in the above formula (I"), and A and Z are the same as defined in the above formulas (II) and (III), or

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wherein R¹ - R¹³, X and Y are the same as defined in the above formula (I"), and A and Z are the same as defined in the above formulas (II) and (III).

[0051] The compounds (II) and (II') are reacted with the compounds (III) and (III') respectively in a mixture system of an appropriate solvent such as benzene, toluene, dimethylformamide, dimethoxyethane, tetrahydrofuran, dioxane, ethanol, methanol or the like and water or in an anhydrous system in the presence of a palladium catalyst such as Pd(PPh₃)₄, PdCl₂(PPh₃)₂, PdCl₂(OAc)₂, PdCl₂(CH₃CN)₂ or the like, preferably Pd(PPh₃)₄, under a basic condition (for example, by K₃PO₄, NaHCO₃, NaOEt, Na₂CO₃, Et₄NCl, Ba(OH)₂, Cs₂CO₃, CsF, NaOH, Ag₂CO₃ or the like) at room temperature or with heating for several tens minutes to several tens hours to obtain the compound (I''').

[0052] One of substituents A and Z of the compounds to be reacted may be any of the borane groups which are applicable in the Suzuki Reaction (Chemical Communication 1979, 866, Journal of Synthetic Organic Chemistry, Japan, 1993, Vol.51, No.11, 91-100) and dihydroxyborane is preferable. The other may be any of the leaving groups which are applicable in the Suzuki Reaction, for example, halogen, -OSO₂(C_qF_{2q+1}) wherein q is an integer of 0 to 4, or the like. Specifically, halogen, trifluoromethanesulfonyloxy (hereinafter referred to as OTf) or the like is preferable and bromine, iodine or OTf is more preferable.

[0053] The substituents R¹ - R¹³ and -X-Y of the compounds (II), (III), (III) and (IIII') may be any of the groups which do not affect the Suzuki Reaction, for example, any groups other than halogen and -OSO₂(C_qF_{2q+1}) wherein q is an integer of 0 to 4.

[0054] For example, Y may be optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted acyl optionally substituted lower alkoxy when X is $-CH_2$ - and Y may be optionally substituted lower alkoxy carbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -C- or $-NR^{14}$ -. Even if R^1 - R^{13} or Y is halogen, these reactions can be carried out without difficulty when the reactivity of the substituent A with the substituent Z is higher than that of halogen with either of substituents A and Z.

[0055] Even if one of R¹ -R¹³ and -X-Y is hydroxy, the above reactions can be carried out preferably after the protection of hydroxy group with a usual hydroxy-protecting group (for example, metoxymethyl, benzyl, tert-butyldimethylsilyl, methansulfonyl, p-toluenesulfonyl or the like), followed by the removal of them by usual methods.

[0056] As processes for producing the compound (I'''), the above mentioned Suzuki Reaction is most preferable in view of the efficiency and easiness but silicon, zinc, tin or the like can be used in place of the borane group in the above

scheme.

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[0057] For example, in the case that one of A and Z is $-SiR^{17}_{3-r}(Hal)_r$, wherein R^{17} is independently lower alkyl, Hal is halogen and r is an integer of 1 to 3 and the other is halogen or $-OSO_2(C_qF_{2q+1})$ wherein q is an integer of 0 to 4, the coupling reaction may be carried out using a usual palladium catalyst (Synlett (1991) 845-853, J. Org. Chem. 1996, 61, 7232-7233). Examples of preferable palladium catalysts are (i- $Pr_3P_2PdCl_2$, [(dcpe) $PdCl_2$] (dcpe= $Cy_2PCH_2CH_2PCy_2$), ($\eta^3-C_3H_5PdCl_2$) and the like.

[0058] Even in the case that one of A and Z is -SnR¹⁸₃ wherein R¹⁸ is each independently lower alkyl and the other is halogen, acetyloxy or -OSO₂(C_qF_{2q+1}) wherein q is an integer of 0 to 4, an objective compound can be obtained using a usual palladium catalyst (preferably Pd(PPh₃)₄ or the like) (Angew. Chem. Int. Ed. Engl. 25 (1986) 508-524).

[0059] In the case that one of A and Z is -Zn(Hal) wherein Hal is halogen and the other is halogen, an objective compound can be obtained (Acc. Chem. Res. 1982, 15, 340-348). Any usual palladium catalyst is applicable and Pd(PPh₃)₄, PdCl₂(dppf), PdCl₂(PPh₃)₂, PdCl₂(P(o-Tolyl)₃)₂, Pd(OAc)₂ and the like are exemplified as preferable examples.

[0060] All of these reactions may be carried out in a suitable solvent (for example, dimethylformamide, tetrahydrofuran or the like) at room temperature or with heating for several tens minutes to several tens hours.

Process for producing the compound (I") [Process b]

[0061] As another easier processes for producing the compound (I""), the following process wherein the compound of the formulas (IV), (V) and (VI) are coupled is also applicable.

wherein R¹ - R¹³, X and Y are the same as defined in the above formulas (I), (II) and (III) and A¹, A², Z¹ and Z² are the same as defined in the above A and Z, respectively. The reactivity of A¹ is higher than or equal to that of A² in the compound (IV) and the reactivity of A² is higher than or equal to that of A¹ in the compound (IV).

[0062] For production of the compound (I") by the above process the compound (IV) may be reacted with the compound (V), followed by the reaction with the compound (VI) without an isolation. The objective compound can be obtained also by a process wherein the compound (IV') is reacted with the compound (VI), followed by a reaction with the compound (V).

[0063] Because the reactions of the substituents A^1 and Z^1 and the substituents A^2 and Z^2 are necessary to obtain the objective compound, the reactivity of the substituent A^1 and that of A^2 should be different. A preferable example is the combination that A^1 is iodine and A^2 is bromine or -OTf in the compound (IV). Conversely in the compound (IV) iodine for A^2 and bromine or -OTf for A^1 are preferable. In the case that the compound (IV) or (IV') is a symmetry compound, the objective compound is obtained even if A^1 and A^2 are the same group.

[0064] The substituents Z^1 and Z^2 may be the same or different group.

[0065] Various other conditions in this process are the same as those in the "Process a".

[0066] In the above compounds, the substituents R^1 - R^{13} may be any of the groups which do not affect the reaction (for example, a group other than halogen and - $OSO_2(C_qF_{2q+1})$) wherein q is an integer of 0 to 4) or any of the groups which do not affect the reaction and are changeable to R^1 - R^{13} by a usual reaction. In the latter case the substituents may be changed to R^1 - R^{13} in suitable steps according to the reaction of each compound.

[0067] For example, in the case that a substituent is formyl and an objective substituent is hydroxy, after the substituent is changed to formyloxy by the Baeyer-Villiger reaction etc., a usual hydrolysis reaction may be carried out under an acidic or alkaline condition. Specifically, a compound which has formyl is reacted with a peroxy acid such as peracetic acid, perbenzoic acid, m-chloroperbenzoic acid, trifluoroperacetic acid, hydrogen peroxide or the like in a suitable solvent such as 1,2-dichloroethane, chloroform, dichloromethane, carbon tetrachloride, benzene or the like at - 20 °C or with heating for several minutes to several tens hours, followed by the hydrolysis of the obtained compound which has formyloxy under an acidic condition (for example, with heating with hydrochloric acid) or under a basic condition (for example, with heating with sodium hydroxide).

[0068] In the case that a substituent is formyl and an objective substituent is hydrorymethyl, the compound which has formyl may be reacted with a reductant such as sodium borohydride, lithium borohydride, zinc borohydride, triethyllithium borohydride, alminium hydride, diisobutylalminium hydride or the like in a solvent (for example, methanol, ethanol, isopropanol, dimethylsulfoxide, diethylene glycol dimethoxyethane, tetrahydrofuran, benzene, toluene, cyclohexane or the like) which is suitable for the reductant at -20 °C to 80 °C, preferably under ice-cooling or at room temperature, for several tens minutes to several hours.

[0069] In the case that a substituent is formyl and an objective substituent is alkenyl having additional carbon atoms, an objective compound can be obtained by the Wittig Reaction (Organic Reaction, 1965, vol.14, p. 270).

[0070] In the case that a substituent is formyl and an objective substituent is carboxy, the compound which has formyl may be reacted with an oxidizing agent such as sodium chlorite, the Jones Reagent, chromic anhydride or the like in a solvent such as tert-butanol, acetone or the like which is suitable for the oxidizing agent at 0 °C or with heating for several hours. The reaction is preferably carried out by addition of 2-methyl-2-buten, sodium dihydrogenphosphate or the like if needed.

[0071] In the case that a substituent is hydroxy and an objective substituent is substituted lower alkoxy, the compound which has hydroxy may be reacted with a proper alkylating agent in the presence of a base such as sodium carbonate, sodium bicarbonate, potassium carbonate, calcium hydroxide, barium hydroxide, calcium carbonate or the like in a suitable solvent such as tetrahydrofuran, acetone, dimethylformamide, acetonitrile or the like. Specifically, the reaction of a compound which has hydroxy with a proper halogenated compound such as methyl iodoacetate, ethyl chloroacetate, propyl chloroacetate or the like can give a compound of which substituent is alkoxycarbonyl(lower)alkoxy.

[0072] In the case that a substituent is carboxy and an objective substituent is carbamoyl, the compound which has carboxy may be carbamoylated with an amine such as ammonia, dimethylamine or the like at 0 °C or with heating for several minutes to several hours in a suitable solvent such as tetrahydrofuran, dimethylformamide, diethyl ether, dichloromethane or the like, if necessary after activation by an activating agent such as thionyl chloride, an acid halide, an acid anhydride, an activated ester or the like.

[0073] In the case that a substituent is hydrogen and an objective substituent is halogen, the compound which has hydrogen may be halogenated by a halogenating agent which is generally used (for example, bromine, chlorine, iodine, sulfuryl chloride, N-bromosuccinimide, N-iodosuccinimide or the like) in a suitable solvent such as chloroform, dichloromethane, carbon tetrachloride, acetonitrile, nitromethane, acetic acid, acetic anhydride or the like, if necessary in the presence of a catalyst such as the Lewis acid, hydrochloric acid, phosphoric acid or the like at -20 °C or with heating for several minutes to several tens hours.

[0074] The compound (I) can be obtained by a reaction of the compound (II) which has a substituent -X-Y with the compound (III) or a reaction of the compound (III) which has a substituent -X-Y with the compound (II). Further, the compound (I) can also be obtained by a reaction of the compound (II) or (III) which has a substituent - W which is convertible into a substituent -X-Y with the compound (III) or (II), followed by a conversion of a substituent -W into a substituent -X-Y.

[0075] For example, in the case of a compound wherein -W is hydroxy or protected hydroxy, an objective substituent such as lower alkyl, lower alkenyl, lower alkynyl, acyl, cycloalkyl, cycloalkenyl, aryl, heterocyclyl, lower alkoxy or the like may be introduced by a usual reaction.

[0076] Concretely, to obtain a compound wherein X is -O-, a compound wherein - W is hydroxy is synthesized and dissolved in a suitable solvent (for example, dimethylformamide, tetrahydrofuran, acetone, benzene, dioxane, acetonitrile or the like), followed by addition of a base such as hydroxides or carbonates of alkaline metals or alkaline-earth metals (for example, sodium carbonate, sodium bicarbonate, potassium carbonate, calcium hydroxide, barium hydroxide, calcium carbonate and the like) or tertiary amines such as triethylamine and the like. To the reactant is added a compound Y-V wherein V is halogen or $-OSO_2(C_qF_{2q+1})$ wherein q is an integer of 0-4 (for example, prenyl bromide, cyclohexenyl bromide, cinnamyl bromide, 1-bromo-2-penten, geranyl bromide, 5-bromo-2-methyl-2-penten, 1,3-dichloro-2-buten, 3-chloropropyne, prenyl triflate, cyclohexenyl triflate, 1,3-trichloropropene or the like) at - 20 °C or with

heating for several minutes to several tens hours to obtain an objective compound wherein -W has been converted into -O-Y.

[0077] To obtain a compound wherein X is ${}^{\circ}$ CH₂-, ${}^{\circ}$ N R¹⁴- or ${}^{\circ}$ S-, a compound wherein - W is hydroxy is reacted with trifluoromethanesulfonic anhydride etc. in a solvent such as anhydrous dichloromethane, chloroform, carbon tetrachloride or the like in the presence of a base such as pyridine, triethylamine or the like to obtain a triflate. Then, the obtained compound is reacted with Y-V' wherein V' is ${}^{\circ}$ CH₂ZnI, ${}^{\circ}$ SH, ${}^{\circ}$ NHR¹⁴ in the presence of a catalyst such as palladium, nickel or the like in a suitable solvent such as tetrahydrofuran, dimethylformamide, diethyl ether, dimethoxyethane or the like to give an objective compound.

[0078] In the case that X is NR¹⁴, a compound wherein W is NH₂ may be reacted with a ketone or an aldehyde in a suitable solvent such as tetrahydrofuran, methanol or the like, followed by reduction with a suitable reductant such as sodium borohydride, sodium cyanoborohydride, zinc hydrochloride or the like or by catalytic reduction to obtain an objective compound.

[0079] A usual reaction of a compound wherein W is NH₂ with Y-V" wherein Y is acyl, lower alkylsulfonyl optionally substituted or arylsulfonyl optionally substituted and V" is a leaving group such as halogen gives a compound wherein -X-Y is -NH-Y.

[0080] To obtain a compound wherein X is -SO- or -SO₂-, a compound wherein X is - S- which is synthesized by the above mentioned process may be oxidized with a usual oxidizing agent such as m-chloroperbenzoic acid.

[0081] A compound of the present invention wherein -X-Y is lower alkenyloxy is dissolved in a solvent such as ethanol, ethyl acetate or the like and hydrogenated with a catalyst such as Pd-carbon powder, platinum, rhodium, ruthenium, nickel or the like to give a compound wherein -X-Y is lower alkoxy.

[0082] A reaction of a compound wherein -X-Y is lower alkenyloxy with m-chloroperbenzoic acid or the like in a solvent such as dichloromethane, chloroform, benzene, hexane, tert-butanol or the like gives a compound wherein -X-Y is epoxidated lower alkoxy.

[0083] In the case that a compound has a substituent interfering of a reaction, the substituent may be protected with a suitable protecting group in advance and the protecting group may be left in a suitable step by a usual method. For example, if hydroxy interferes the reaction, hydroxy may be protected with methoxymethyl, methanesulfonyl, benzyl, trifluoromethanesulfonyl, tert-butyldimethylsilyl or the like, followed by deprotection in a suitable step.

[0084] For example for a protection of hydroxy with methanesulfonyl, a compound which has hydroxy may be reacted with methanesulfonyl chloride in a solvent such as dichloromethane, chloroform, carbon tetrachloride or the like in the presence of a base such as triethylamine, pyridine or the like under ice-cooling or at room temperature for several hours. The protected compound may be deprotected with 1-4 N sodium hydroxide, potassium hydroxide, aqueous solution thereof sodium methoxide, ethyl magnesium bromide or the like in a solvent such as dimethysulfoxide, dimethylformamide, tetrahydrofuran, dioxane, dimethoxyethane or the like at room temperature or with heating for several tens minutes to several hours.

[0085] When methoxymethyl is used as a protecting group of hydroxy, a compound which has hydroxy may be reacted with chloromethylmethylether in a solvent such as tetrahydrofuran, dioxane, dimethoxyethane or the like in the presence of sodium hydride, diisopropylethylamine or the like to obtain a compound which has a protected hydroxy group. The compound may be subjected to a usual deprotection reaction with hydrochloric acid, sulfuric acid or the like in a solvent such as methanol, tetrahydrofuran, acetic acid or the like for a deprotection.

[0086] When tert-butyldimethylsilyl is used as a protective group, a compound which has hydroxy may be reacted with tert-butyldimethylsilyl chloride, tert-butyldimethylsilyl triflate or the like in a solvent such as dimethylformamide, acetonitrile, tetrahydrofuran, dimethylformamide, dichloromethane or the like in the presence of imidazole, triethylamine, 2, 6-lutidine or the like. For a deprotection reaction the protected compound may be reacted with tetrabutylammonium fluoride or the like in a solvent such as tetrahydrofuran or the like.

Est [0087] Both of known compounds and the compounds which are produced by the following process may be used as the compounds (III) and (III') in the above scheme.

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[0088] Known compounds (VIII) and (IX), or (VIII') and (IX') wherein A and Z are groups which can be subjected to a coupling reaction by the Suzuki Reaction with each other; for example, one is borane such as dihydroxyborane, di(lower)alkoxyborane or the like and the other is halogen or $-OSO_2(C_qF_{2q+1})$ wherein q is an integer of 0-4; D is a group other than halogen and $-OSO_2(C_qF_{2q+1})$ wherein q is the same as defined above are reacted by the same method as above to obtain a compound (VII) or (VII').

[0089] As described above, instead of a compound which has borane, a compound which has $-SiR^{17}_{3-r}(Hal)_r$ wherein R^{17} is each independently lower alkyl Hal is halogen and r is an integer of 1-3, $-SnR^{18}_3$ wherein R^{18} is each independently lower alkyl or - Zn(Hal) wherein Hal is halogen may be used for a reaction to obtain an objective compound.

[0090] Then, a substituent D is converted into a substituent A which is applicable to the Suzuki Reaction.

[0091] For example, a compound wherein D is hydrogen may be reacted with a halogenating agent such as bromine, chlorine, iodine, sulfuryl chloride, N-bromosuccinimide or the like in a suitable solvent such as acetic acid, chloroform, dichloromethane, carbon tetrachloride, water, acetic acid-sodium acetate or the like at - 20 °C or with heating for several minutes to several tens hours to give an objective compound wherein A is halogen.

[0092] A compound wherein D is protected hydroxy may be reacted with a trifluoromethanesulfonating agent such as trifluoromethanesulfonic anhydride, trifluoromethansulfonyl chloride or the like in a suitable solvent such as dichloromethane, chloroform, tetrahydrofuran or benzene in the presence of a base such as pyridine or triethylamine at -20 °C or with heating for several minutes to several tens hours to give an objective compound wherein A is OTf.

[0093] A compound of the present invention thus obtained can be converted into prodrug thereof. Any usual methods for conversion into a prodrug may be used. For example, hydroxy or amino which is attached a compound of the present invention at any position may be substituted with a usual group for a prodrug. An example of conversion into a prodrug

is a substitution of hydroxy with acyloxy substituted with carboxy, sulfo, amino, lower alkylamino or the like, phosphonoxy etc. A substitution of hydroxy for R^1 with -OCOCH₂COOH, -OCOCH=CHCOOH, -OCOCH₂SO₃H, -OPO₃H₂, -OCOCH₂NMe₂, -OCO-Pyr wherein Pyr is pyridine or the like is preferable.

[0094] A selective suppressor of the IgE production of the present invention comprises a compound which suppresses the IgE production in a process from a differentiation of a mature B cell into an antibody-producing cell to the production of an antibody and which does not suppress or weakly suppresses the production of the immunoglobulins IgG, IgM and/or IgA which are produced at the same time.

[0095] The term "suppresses the IgE production in a process from a differentiation of a mature B cell into an antibody-producing cell to the production of an antibody" means to suppress the IgE production by inhibiting one of the following processes.

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- 1) A process wherein mature B cells are activated by various factors such as cytokines, i.e., IL-4, IL-5, etc., anti-CD40 antibody or the like.
- 2) A process wherein the activated B cells differentiate into antibody-producing cells such as plasma cells etc. (concretely, a process of switching of the activated B cells to IgE class antibody-producing cells) and/or
- 3) A process wherein the antibody-producing cells produce immunoglobulins (specifically, a process of the IgE production)

[0096] An inhibition of "a process wherein a mature B cell is activated by various factors" in the process 1) does not include an inhibition of a process wherein the factors are produced from other cells and the like.

[0097] The term "suppresses the IgE production and does not suppress or weakly suppresses the production of the immunoglobulins IgG, IgM and/or IgA which are produced at the same time" means that the IgE production is suppressed enough to suppress allergy reactions and that the IgG, IgM and/or IgA production is not suppressed so potent as to badly affect an immune system concerning a living body protection under the condition that IgE and one or more of IgG, IgM and IgA can be produced at the same time. In other words,

[** WARNING! MISSING DATA: <FLA>1<FLAC POS=MID>○</FLAC></FLA> **] The suppression of the IgE production is 5,000 times, preferably 10,000 times, more preferably 15,000 times, most preferably 20,000 times or more as potent as those of the IgG, IgM and/or IgA production and/or [** WARNING! MISSING DATA: <FLA>2<FLAC POS=MID>○</FLAC></FLA> **] The IgG, IgM and/or IgA production is not suppressed to less than 50 % even at 5,000 times, preferably 10,000 times, more preferably 15,000 times, most preferably 20,000 times the concentration at which 50 % of the IgE production is suppressed as compared with that in the absence of the suppressor.

[0098] The term "the concentration at which 50 % of the IgE production is suppressed as compared with that in the absence of the suppressor" means a concentration at which the IgE production is limited to 50 % of the production in the absence or without administration of the selective suppressor of the IgE production of the present invention under the condition that the IgE can be produced. The suppressor is useful as a medicament when it has a selectivity for the IgE as compared with at least one of IgG, IgM or IgA, preferably with all of them.

[0099] The selective suppressor of the IgE production of the present invention suppresses 90 % or more of the IgE production as compared with that without administration of the suppressor at a dosage that the suppressor does not suppress or weakly suppresses the IgM, IgG and/or IgA production when the suppressor is administered to a mammal, which includes human, sensitized by an allergen. The term "allergen" means any substance that can induce the IgE production and an allergic reaction. Clinical examples are pollen, a acarid, house dust, albumin, milk, a soybean etc. and experimental examples are ovalbumin, bovine gamma globulin, bovine Serum albumin, an antigen protein of cedar pollen (Cryj I and Cryj II), an antigen protein for acarid (Derf I and Derf II) etc. The term "a dosage that the suppressor does not suppress or weakly suppresses the IgM, IgG and/or IgA production" means the dosage at which the suppression rate of the IgG, IgM and/or IgA is 10 % or less, preferably 5 % or less, more preferably 3 % or less as compared with those produced without administration of the selective suppressor of the IgE production of the present invention.

[0100] The selective suppressor of the IgE production of the present invention suppresses infiltration of an inflammatory cell to a tissue. The term "inflammatory cell" includes all of a lymphocyte, an eosinophil, a neutrophile and a macrophage, and an eosinophil and/or a neutrophile are preferable.

[0101] The effect of the selective suppressor on the IgE production of the present invention is potent for its direct action to B cells. Because the suppressor does not affect the humoral immunity concerning a biological protective reaction, it has many advantages, for example, little side effect such as infections etc.,

[0102] All of compounds that have the above effect are useful as an immunosuppressor regardless of the structure

and one of the examples is the compound (I) or (I") of the present invention.

[0103] The compounds of the present invention also include ones which have the suppressive effect on a mitogen reaction and/or a cytokine reaction.

[0104] Specifically, the compounds have a potent antiproliferative effect on T and/or B cells and/or a suppressive effect on the IL-5 and/or IL-4 production. They selectively suppress the IL-4 and/or IL-5 production and do not suppress the IL-2 production.

[0105] The immunosuppressor or anti-allergic agent of the present invention is useful for prevention or a treatment of allergic diseases such as a rejection symptom against a transplantation of an organ or a tissue, a graft-versus-host reaction which is caused by a bone marrow transplantation, atopic allergic diseases (for example, a bronchial asthma, an allergic rhinitis, an allergic dermatitis and the like), a hypereosinophils syndrome, an allergic conjunctivitis, a systemic lupus erythematosus, a polymyositis, a dermatomyositis, a scleriasis, MCTD, a chronic rheumatoid arthritis, an inflammatory bowel disease, an injury caused by ischemia-reperfusion, a pollenosis, an allergic rhinitis, an urticaria, a psoriasis and the like.

[0106] When the compound of the present invention is administered as a immunosuppressor and/or anti-allergic agent, it can safely be administered both orally and parenterally. In the case of an oral administration, it may be in any usual forms such as tablets, granules, powders, capsules, pills, solutions, suspensions, syrups, buccal tablets, sublingual tablets and the like for the administration. When the compound is parenterally administered, any usual forms are preferable, for example, injections such as intravenous injections and intramuscular injections, suppositories, endermic agents, vapors and the like. An oral administration is particularly preferable.

[0107] A pharmaceutical composition may be manufactured by mixing an effective amount of the compound of the present invention with various pharmaceutical ingredients suitable for the administration form, such as excipients, binders, moistening agents, disintegrators, lubricants, diluents and the like. When the composition is of an injection, an active ingredient can be sterilized with a suitable carrier to give a pharmaceutical composition.

[0108] Specifically, examples of the excipients include lactose, saccharose, glucose, starch, calcium carbonate, crystalline cellulose and the like, examples of the binders include methylcellulose, carboxymethylcellulose, hydroxypropylcellulose, gelatin, polyvinylpyrrolidone and the like, examples of the disintegrators include carboxymethylcellulose, sodium carboxymethylcellulose, starch, sodium alginate, agar, sodium lauryl sulfate and the like, and examples of the lubricants include talc, magnesium stearate, macrogol and the like. Cacao oil, macrogol, methyl cellulose and the like may be used as base materials of suppositories. When the composition is manufactured as solutions, emulsified injections or suspended injections, dissolving accelerators, suspending agents, emulsifiers, stabilizers, preservatives, isotonic agents and the like may be added. For an oral administration, sweetening agents, flavors and the like may be added.

[0109] Although a dosage of the compound of the present invention as an immunosuppressor and/or anti-allergic agent should be determined in consideration of the patient's age and body weight, the type and degree of diseases, the administration route or the like, a usual oral dosage for human adults is 0.05-100 mg/kg/day and the preferable dosage is 0.1 - 10 mg/kg/day. In the case that it is parenterally administered, although the dosage highly varies with administration routes, a usual dosage is 0.005 - 10 mg/kg/day, preferably, 0.01 - 1 mg/kg/day. The dosage may be administered in one or some separate administrations.

[0110] The present invention is further explained by the following Examples and Experiments, which are not intended to limit the scope of the present invention.

EXAMPLE

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[0111] The abbreviations which are used in EXAMPLE mean the following.

Bn benzyl DME 1, 2-dimethoxyethane **DMF** N, N-dimethylformamide **DMSO** dimethylsulfoxide **MCPBA** m-chloroperbenzoic acid MOM methoxymethyl Ms methanesulfonyl Ру pyridyl **TBS** tert-butyldimethylsilyl

> trifluoromethanesulfonyl p-toluenesulfonyl

Example 1 Synthesis of the comounds (I-1), (I-2) and (I-3)

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(Step 1) Synthesis of the compound 1

[0113] To 300 ml of a solution of 10.63 g (22.08 mmol) of a compound (III-I) in 1, 2-dimethoxyethane was added 3.60 g (3.12 mmol) of tetrakis(triphenylphosphine)palladium (0) at room temperature. To the mixture were added 80 ml of a solution of a compound 2 (9.50 g; 26.5 mmol) in 99% ethanol and 125 ml (250 mmol) of an aqueous solution of 2 M sodium carbonate and the reacted suspension was heated under refluxing in an argon atmosphere for 6 hours. After cooling, the reaction mixture was filtered off to remove an insoluble material and the filtrate was acidified with 2 N hydrochloric acid and extracted with ethyl acetate. The extract was washed with 5 % aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated. After the residue was purified by silica gel chromatography (hexane-ethyl acetate 1:1), the obtained product was recrystallized from hexane-ethyl acetate to give the compound 1 (11.57 g; 87 % yield) as colorless crystals.

(Step 2) Synthesis of the compound (I-2)

[0114] To 60 ml of a suspension of the compound 1 (9.30 g; 15.48 mmol) in anhydrous dichloromethane was added 3.24 ml (23.22 mmol) of triethylamine, followed by addition of 1.80 ml (23.22 mmol) of methanesulfonyl chloride under ice-cooling and stirred for 2 hours at the same temperature. After the solvent was removed, the residue was acidified with 80 ml of 1 N hydrochloric acid and extracted with chloroform. The extract was washed with 1 N hydrochloric acid, 5 % aqueous solution of sodium bicarbonate and saturated brine successively, and the obtained product was dried and concentrated. The obtained residue was recrystallized from hexane-ethyl acetate to give 9.93 g of the compound (1-2) (95 % yield) as colorless crystals.

(Step 3) Synthesis of the compound 3

[0115] Stirred were 300 ml of a solution of 9.76 g (14.38 mmol) of the compound (1-2) and 765 mg (4.31 mmol) of palladium chloride (II) in 1, 4-dioxane under a hydrogen atmosphere at room temperature for 15 hours. An insoluble

material was removed off by filtration with celite and the obtained filtrate was concentrated. The residue was recrystallized from hexane-ethyl acetate to give the compound 3 (8.43 g; 100 % yield) as colorless crystals.

(Step 4) Synthesis of the compound (I-3)

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[0116] To 40 ml of a solution of the compound 3 (4.01 g; 6.81 mmol) in anhydrous N, N-dimethylformamide were added successive, 1.45 g (10.5 mmol) of potassium carbonate and 1.21 ml (10.5 mmol) of prenyl bromide. After the mixture was stirred under a nitrogen atmosphere for 15 hours at room temperature, the reaction mixture was poured into 230 ml of 6 % aqueous citric acid and extracted with ethyl acetate. The extract was washed with 5 % citric acid, 5 % aqueous solution of sodium bicarbonate and saturated brine successively, followed by being dried and concentrated. The residue was recrystallized from hexane-ethyl acetate to give 4.01 g of the compound (I-3) (90% yield) as colorless crystals.

(Step 5) Synthesis of the compound (I-1)

[0117] To 38 ml of a solution of 3.80 g (5.79 mmol) of the compound (I-3) in dimethylsulfoxide was added 15 ml (60.0 mmol) of 4 N sodium hydroxide and the reaction mixture was warmed at 60 °C for 4 hours. After the mixture was cooled, 100 ml of 1 N hydrochloric acid was added to it and the obtained mixture was extracted with ethyl acetate. The extract was washed with 5 % aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was recrystallized from methanol to give 1.72 g of the compound (I-1) (70 % yield) as colorless crystals.

Reference Example 1 Synthesis of the compound 2

[0119] To a solution of the compound 4 (80.0 g; 0.287 mol) in 300 ml of N, N-dimethylformamide were added tert-butyldimethylsilyl chloride (45.87 g; 0.296 mol) and imidazole (21.46 g; 0.315 mol) and stirred at room temperature for 19 hours. The reaction mixture was poured into 1 L of water and extracted with ether. The extract was washed with water and saturated brine successively and then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethyl acetate 50:1) to give the compound 5 (97.20 g; 86 % yield) as a colorless oil.

[0120] To 850 ml of a solution of the compound 5 (97.20 g; 0.247 mol) in annydrous tetrahydrofuran was added 152 ml (0.252 mol) of a solution of 1.66 N n-butyllithium in hexane under a nitrogen atmosphere at -70 °C and stirred at the same temperature for 1.5 hours. To the mixture was added 171 ml (0.741 mol) of triisopropyl borate at - 70 °C and stirred for 3 hours with gradually warming to room temperature. Under cooling with ice, 500 ml of water and 320 ml of 5 % citric acid were added to the mixture and stirred at the same temperature for 30 minutes. The solution was extracted with ethyl acetate and the extract was washed with water and saturated brine successively, then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethyl acetate 2:1) to give the compound 2 (51.10 g; 58 % yield) as colorless crystals.

Reference Example 2 Synthesis of the compound (III-1)

(Step 1) Synthesis of the compound 8

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[0122] To a solution of 15.30 g (62.4 mmol) of a compound 7 (Journal of Chemical Society, 1925, 1998) in 300 ml of 1, 2-dimethoxyethane was added 3.60 g (3.12 mmol) of tetrakis(triphenylphosphine)palladium (0) at room temperature. To the mixture were added a solution of 18.89 g (74.9 mmol) of a compound 6 (GB-A No. 2276162) in 80 ml of 99 % ethanol and 125 ml (250 mmol) of an aqueous solution of 2 M sodium carbonate and the reaction suspension was heated under refluxing in an argon atmosphere for 6 hours. After cooling, the reaction mixture was filtered off to remove an insoluble substance. The filtrate was acidified with 2 N hydrochloric acid and extracted with ethyl acetate. The extract was washed with 5 % aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethylacetate 1:1) and recrystallized from hexane-ethyl acetate to give the compound 8 (15.68 g; 97 % yield) as colorless crystals.

(Step 2) Synthesis of the compound 9

[0123] To a suspension of the compound 8 (15.34 g; 59.39 mmol) in 240 ml of anhydrous dichloromethane were added 16.6 ml (118.8 mmol) of triethylamine and 6.93 ml (89.09 mmol) of methanesulfonyl chloride under ice-cooling and stirred at the same temperature for 2 hours. After the solvent was removed, the residue was acidified with 1 N hydrochloric acid (100 ml) and extracted with ethyl acetate. The extract was washed with 1 N hydrochloric acid, 5 % aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was recrystallized from hexane-ethyl acetate to give the compound 9 (17.24 g; 86 % yield) as colorless crystals.

(Step 3) Synthesis of the compound (III-24)

[0124] To 210 ml of a suspension of the compound 9 (17.03 g; 50.63 mmol) in acetic acid were added 6.23 g (75.95 mmol) of sodium acetate and 3.91 ml (75.95 mmol) of bromine at room temperature and stirred at the same temperature for 16 hours. After 3.91 ml (75.95 mmol) of bromine was added to the reacted suspension and stirred at 50 °C for 4 hours, 3.91 ml (75.95 mmol) of bromine was added and stirred at 50 °C for 3 hours. The reaction mixture was poured into 1 L of 1 M aqueous sodium thiosulfate and stirred for 30 minutes. The precipitate was collected by filtration and washed with water. The obtained crystals were dissolved in 800 ml of chloroform, washed with 5 % aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was recrystallized

from hexane-ethyl acetate to give the compound (III-24) (18.12 g; 86 % yield) as colorless crystals.

(Step 4) Synthesis of the compound 10

[0125] To a suspension of the compound (III-24) (15.80 g; 38.05 mmol) in 400 ml of 1, 2-dichloroethane was added 12.30 g (57.05 mmol) of 80 % m-chloroperoxybenzoic acid at room temperature and stirred at the same temperature for 17 hours. The reaction mixture was poured into 360 ml of 0.2 M aqueous sodium thiosulfate and extracted with chloroform. The extract was washed with 300 ml of 0.2 M sodium thiosulfate and 200 ml of 5 % of sodium bicarbonate (× 2) successively, then dried and concentrated. The residue (15.80 g) was dissolved in 330 ml of 1, 2-dimethoxyethane and 30 ml (120 mmol) of 4 N hydrochloric acid was added. After the reaction mixture was stirred at 50 °C for 12 hours and cooled, the solvent was removed and the residue was extracted with ethyl acetate. The extract was washed with 5 % aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated to give the compound 10 (14.35 g; 97 % yield) as pale brown crystals.

15 (Step 5) Synthesis of the compound (III-1)

[0126] Using an analogous procedure for the compound (I-4), 12.63 g of the compound (III-1) as colorless crystals (88 % yield) was obtained from the compound 10 (12.0 g; 29.76 mmol).

20 Example 2 Synthesis of the compound (I-4)

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(Step 1) Synthesis of the compound 11

[0128] To a solution of 816 mg (2 mmol) of a compound (III-2) in 40 ml of 1, 4-dioxane were added 114 mg (0.1 mmol) of tetrakis(triphenylphosphine)palladium (0), 748 mg (2.09 mmol) of the compound 2 and 589 mg (2.77 mmol) of powders of anhydrous potassium phosphate at room temperature and heated in a nitrogen atmosphere at 85 °C for 23 hours. The reaction mixture was cooled and extracted with ethyl acetate. The extract was washed with 2 N hydrochloric acid, 5 % aqueous sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethyl acetate 4:1) and crystallized from pentane to give the compound 11 (745 mg; 67 % yield) as pale yellow crystals.

(Step 2) Synthesis of the compound (I-4)

[0129] To a solution of the compound 11 (557 mg; 1 mmol) in 10 ml of dichloromethane was added 259 mg (1.2 mmol) of 80 % m-chloroperbeuzoic acid at room temperature and stirred for 15 hours. The reaction mixture was poured into 0.1 M aqueous sodium thiosulflate and extracted with ethyl acetate. The extract was washed with 0.1 M aqueous sodium thiosulflate, 5 % aqueous sodium bicarbonate and saturated brine successively, then dried and concentrated. To a solution of 650 mg of the obtained residue in 5 ml of methanol was added a solution of 1 M sodium methoxide in 2 ml of methanol under ice-cooling and stirred for 30 minutes. After the reacted solution was acidified with 2 N hydro-

chloric acid and extracted with ethyl acetate, the extract was washed with saturated brine, then dried and concentrated. To a solution of 647 mg of the obtained residue in 10 ml of tetrahydrofuran was added 2 ml of 1 M tetrabutylammonium fluoride in tetrahydrofuran under ice-cooling and stirred for 30 minutes. The obtained reaction mixture was poured into 2 N aqueous hydrochloric acid under ice-cooling to acidiiy and extracted with ethyl acetate. The ethyl acetate layer was washed with water, 5 % aqueous sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethyl acetate 2:1) to give 275 mg of the compound (I-4) (62 % yield) as powders.

Reference Example 3 Synthesis of the compound (III-2)

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(Step 1) Synthesis of the compound 13

[0131] To 26 ml of a solution of 2.61 g (10 mmol) of a compound 12 (Journal of Organic Chemistry, 1987, 52, 4485) in dimethylformamide were added 400 mg (10 mmol) of 60 % sodium hydride dispersion in oil and 836 mg (11 mmol) of chloromethyl methyl ether under ice-cooling and stirred for 30 minutes. After warming to room temperature, it was further stirred for 1 hours. The reaction mixture was concentrated under reduced pressure and extracted with ethyl acetate. The extract was washed with 5 % aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was recrystallized from ethyl acetate-hexane-pentane to give the compound 13 (2.8 g; 92 % yield).

(Step 2) Synthesis of the compound 14

[0132] Using an analogous procedure for the compound 8, the compound 14 was obtained as a pale yellow oil (96 % yield) from the compound 13 and the compound 15 (Tokyo Kasei Kogyo Co., Ltd.).

(Step 3) Synthesis of the compound 16

[0133] To 16 ml of a suspension of 1.38 g (4.3 mmol) of the compound 14 in methanol was added 4 ml of 2 N aqueous hydrochloric acid and stirred for 1 hour under warming at 60 °C. The reaction mixture was concentrated under reduced pressure and extracted with ethyl acetate. The extract was washed with 5 % aqueous sodium bicarbonate and saturated brine successively, then dried and concentrated to give the compound 16 (1.12 g; 94 % yield) as a yellow crystal-line residue.

(Step 4) Synthesis of the compound (III-2)

[0134] To 12 ml of a solution of the compound 16 (1.12 g; 4.05 mmol) in anhydrous dichloromethane was added 1.02 ml (6.08 mmol) of triluoromethanesulfonic anhydride and then 980 ml (12.2 mmol) of pyridine under ice-cooling and stirred for 30 minutes. The reaction mixture was allowed to warm to room temperature and stirred for additional 2 hours and the solvent was removed. The residue was extracted with ethyl acetate, washed with 5 % aqueous sodium bicarbonate and saturated brine successively, then dried and-concentrated. The obtained crude product was purified by sil-

ica gel chromatography to give 1.23 g of the compound (III-2) (74 % yield) as a white crystalline residue.

Example 3 Synthesis of the compounds (I-5), (I-6) and (I-7)

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(Step 1) Synthesis of the compound (I-5)

[0136] Using an analogous procedure for the compound 1 in Example 1, 634 mg (0.972 mmol) of the compound (I-5) was synthesized from 881 mg (1.50 mmol) of the compound (III-11) and 370 mg (1.95 mmol) of 3-trifluoromethyl boric acid. 65 % yield.

(Step 2) Synthesis of the compound 18

[0137] Using an analogous procedure for the compound 3 in Example 1, the compound 18 (360 mg; 0.640 mmol) was synthesized from 433 mg (0.664 mmol) of the compound (I-5). 96 % yield.

(Step 3) Synthesis of the compound (I-6)

[0138] Using an analogous procedure for the compound (I-3) in Example 1, 185 mg (0.293 mmol) of the compound (I-6) was synthesized from the compound 18 (170 mg; 0.302 mmol). 97 % yield.

(Step 4) Synthesis of the compound (I-7)

[0139] Using an analogous procedure for the compound (I-1) in Example 1, 85 mg (0.179 mmol) of the compound (I-7) was synthesized from 150 mg (0.238 mmol) of the compound (I-6). 75% yield.

Reference Example 4 Synthesis of the compound (III-11)

(Step 1) Synthesis of the compound 19

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[0141] Using an analogous procedure for the compound 10 in Reference Example 2, the compound 19 (24.04 g; 103 mmol) was synthesized from the compound 7 (40.03 g; 163 mmol). 63 % yield.

(Step 2) Synthesis of the compound 20

[0142] To a solution of tert-butylamine (5.0 ml; 47.8 mmol) in 10 ml of toluene was added iodine (5.94 g; 23.39 mmol) under a nitrogen atmosphere and stirred for 50 minutes at room temperature. The compound 19 (5.46 g; 23.43 mmol) was added to the solution under ice-cooling, then warmed to room temperature and stirred for 6 days. The reaction mixture was poured into 1 M of aqueous sodium thiosulfate and extracted with ethyl acetate. The extract was washed with 1 M aqueous sodium thiosulfate and saturated brine successively, then dried and concentrated to give the compound 20 (8.30 g; 23.16 mmol). 99 % yield.

5 (Step 3) Synthesis of the compound 21

[0143] Using an analogous procedure for the compound 1 in Example 1, the compound 21 (2.10 g: 4.87 mmol) was synthesized from the compound 20 (8.70g; 24.20 mmol). 20 % yield.

(Step 4) Synthesis of the compound (III-11)

[0144] Using an analogous procedure for the compound (I-2) in Example 1, 2.61 g (4.44 mmol) of the compound (III-11) was synthesized from the compound 21 (3.20 g: 7.42 mmol). 60 % yield.

Example 4 Synthesis of the compound (I-9)

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(Step 1) Synthesis of the compound 22

[0146] Using an analogous procedure described in Reference Example 1, 1.53 g (3.63 mmol) of the compound (I-1) was silylated and the obtained crude product was crystallized from methanol to obtain the compound 22 (2.62 g; 95 % yield) as colorless crystals.

I-9

(Step 2) Synthesis of the compound 23

[0147] To a solution of the compound 22 (2.38 g; 3.1 mmol) in 90 ml of acetone were added 415 mg (3.74 mmol) of trimethylamine-N-oxide dihydrate and 1.60 ml of 5 % aqueous solution of osmium tetroxide (0.3 mmol) and stirred for 1 hour at room temperature. After 20 ml of water was added to the reaction mixture, 4.0 g of sodium bicarbonate and 4.0 g of sodium bisulfite were added and stirred for 30 minutes. The reaction mixture was concentrated under reduced pressure and the residue was extracted with ethyl acetate. The extract was washed with saturated brine, then dried and concentrated.

[0148] A solution of 1.96 g (9.16 mmol) of sodium periodate in 33 ml of water was added dropwise to a solution of 2.46 g of the residue obtained by the above method in 90 ml of ethanol with stirring at room temperature. After stirring for 2 hours, 100 ml of water was added to the reaction mixture and the precipitate was collected by filtration and dried to give the compound 23 (1.98 g; 87 % yield) as powder.

45 (Step 3) Synthesis of the compound (I-9)

[0149] To a suspension of 146 mg (0.38 mmol) of n-propyltriphenylphosphonium bromide in 2.5 ml of anhydrous tetrahydrofuran was added 32 mg (0.29 mmol) of potassium tert-butoxide in a nitrogen atmosphere at 0 °C and stirred at the same temperature for 1 hour. The reaction mixture was cooled to -78 °C, a solution of the compound 23 (70 mg; 0.095 mmol) in 1.5 ml of anhydrous tetrahydrofuran was added and stirred for 30 minutes at the same temperature and for additional 1 hour at room temperature. The reaction mixture was poured into an ice-cooling aqueous solution of saturated ammonium chloride and extracted with ethyl acetate. The extract was washed with saturated brine, then dried and concentrated.

[0150] Using an analogous procedure described in Example 2 Step 2, 70 mg of the residue obtained by the above method was desilylated and the obtained crude product was purified by silica gel chromatography (toluene-ethyl acetate 4:1) to give 37 mg of the compound (I-9) as pale yellow crystals.

Example 5 Synthesis of the compound (I-565)

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(Step 1) Synthesis of the compound (I-563)

Using an analogous procedure for the compound 2 in Example 1, 850 mg of the compound (I-563) was obtained from a compound (III-27) (800 mg; 1.59 mmol) and the compound 2 (1.25 g; 3.50 mmol) as colorless crystals (86 % yield).

(Step 2) Synthesis of the compound (I-565)

[0153] To a solution of 120 mg (0.193 mmol) of the compound (I-563) in 3 ml dimethoxyethane and 1 ml of ethyl acetate was added 2.4 ml of 4 N hydrochloric acid at 40 °C and stirred at the same temperature for 2 hours 20 minutes. After cooling, the reaction mixture was neutralized with aqueous solution of saturated sodium bicarbonate and extracted with ethyl acetate. The extract was washed with saturated aqueous solution of sodium bicarbonate and saturate brine, then dried and concentrated. The obtained crude product was crystallized from hexane-ethyl acetate to give 93 mg of the compound (I-565) as pale yellow crystals (92 % yield).

35 Reference Example 5 Synthesis of the compound (III-27)

(Step 1) Synthesis of the compound 24

[0155] In a mixture of 17.5 ml of tert-butanol and 5.3 ml of 2-methyl-2-butene was suspended 415 mg (1.00 mmol) of the compound (III-24), 6.7 ml of aqueous solution of 724 mg (8.00 mmol) of sodium chlorite and 968 mg (6.20 mmol) of sodium dihydrogen phosphate dihydrate was added and stirred at the same temperature for 4 hours 30 minutes. The solution of 1 M sodium thiosulfate was added to the reaction mixture and the mixture was extracted with ethyl acetate.

Then, organic layer was extracted with aqueous solution of saturated sodium bicarbonate. Then the aqueous layer was acidified with conc. hydrochloric acid and extracted with ethyl acetate. The extract was washed with saturated brine, then dried and concentrated to give the compound 24 (384 mg; 89 % yield) as colorless crystals.

(Step 2) Synthesis of the compound (III-27)

[0156] To 10 ml of a suspension of the compound 24 (1.50 g; 3.48 mmol) in tert-butanol were added 0.533 ml (3.83 mmol) of triethylamine, followed by 0.825 ml (3.83 ml) of diphenyl phosphate azide, and the mixture was stirred at 100 °C for 23 hours. After the reaction mixture was cooled, water was added to it and the mixture was extracted with ethyl acetate. The extract was washed with saturated aqueous solution of sodium bicarbonate and saturated brine, then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethyl acetate 2.5:1) to give 1.43 g of the compound (III-27) as colorless form product (82 % yield).

Example 6 Synthesis of the compound (I-480)

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[0158] To a solution of 120 mg of a compound which was eliminated a Boc group of the compound (I-479) in 2 ml of tetrahydrofuran and 0.5 ml of methanol were added 33 ml (0.34 mmol) of 3-methyl-2-butenal and 90 ml (0.26 mmol) of 3 M aqueous solution of sulfuric acid at 0 °C and stirred for 10 minutes. Further, 19.6 mg of sodium borohydride was added in small portions to the mixture and stirred at room temperature for 1 hour. The saturated aqueous solution of sodium bicarbonate was added to the reaction mixture and extracted with ethyl acetate. The extract was washed with saturated brine, then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethyl acetate 3:1) to give 98 mg of the compound (I-480) as colorless crystals (78 % yield).

Example 7 Synthesis of the compound (I-628)

[0160] Using an analogous procedure for the compound 1 in Example 1, 1.2 g.(2 mmol) of the compound (III-44) was reacted with 551 mg (2.2 mmol) of 4-bromomethanesulfonyl anilide were reacted, followed by desilylated by an analogous procedure described in Example 1 Step 2. The obtained crude product was crystallized from ethyl acetate-hexane to obtain 760 mg of the compound (I-628) as pale yellow crystals (73 % yield).

Reference Example 6 Synthesis of the compound (III-44)

20 (Step 1) Synthesis of the compound 25

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[0162] Using an analogous procedure for the compound 5 in Reference Example 1, a crude product was synthesized by the reaction of 22.2 g (52.7 mmol) of the compound 21, 8.95 g (132 mmol) of imidazole and 17.5 g (1.16 mmol) of tert-butyldimethylsilyl chloride. The obtained product was purified by silica gel chromatography (ethyl acetate:hexane=1:20) and crystallized from ethyl acetate-hexane to give 29.7 g of the compound 25 as colorless crystals (85% yield).

(Step 2) Synthesis of the compound (III-44)

[0163] Using an analogous procedure for the compound 2 in Reference Example 1, 402.7 g (610 mmol) of the compound 25 was reacted with 678 ml (814 mmol) of 1.08 N s-butyl lithium in cyclohexane, followed by addition of 282 ml (1.22 mol) of triisopropyl borate to give 246 g of the compound (III-44) as colorless powders (65 % yield).

Example 8 Synthesis of the compound (I-233)

[0165] In an argon atmosphere, 2.87 g (8.0 mmol) of the compound 20 was dissolved in 32 ml of dimethoxyethane and 8 ml of ethanol, 3.01 g of the compound 2 and 16 ml of 2 M aqueous solution of sodium carbonate were added and the reaction mixture was degassed. To the mixture was added 462 mg (0.4 mmol) of palladium tetrakistriphenylphosphine and the mixture was heated under refluxing for 2 hours. After the reaction mixture was cooled to room temperature, 2.02 g (12.0 mmol) of 4-methylthiophenyl boronic acid, 462 mg (0.4 mmol) of palladium tetrakistriphenylphosphine, 16 ml of 2 M aqueous solution of sodium carbonate, 32 ml of dimethoxyethane and 8 ml of

ethanol were added to it. Then, the reaction mixture was degassed again and heated under refluxing for 16 hours. After the reaction mixture was cooled to room temperature, 100 ml of 5 % aqueous citric acid was added and stirred at the same temperature for 1 hour. Ethyl acetate was added to the reaction mixture and the organic layer was washed with 5 % aqueous citric acid, water, saturated aqueous solution of sodium bicarbonate and saturated brine successively, then dried and concentrated. The residue was purified by silica gel chromatography (hexane-ethyl acetate 3:1) to obtain 2.13 g of crude crystals. The obtained crude crystals were recrystallized from hexane-ethyl acetate to give 1.66 g of the compound (I-233) as colorless crystals (44 % yield)

Example 9 Synthesis of other compounds

[0166] Following compounds (I) were synthesized by analogous procedures described above. The structures and physical constants of the compounds (III) and (I) are as follows.

OMe

5	OMe OMs OMS	III-12 MeO OMOM OMe
	III-2 F————————————————————————————————————	III-13 MsO————————————————————————————————————
	III-3 MsO————————————————————————————————————	III-14 MeO Br
15	OMe OMe Br MeO CONMe ₂	OMe OTI MeO CHO
20	III-5 MsO — Br	III-16 F ₃ C — MeO OMs
25	III-6 HO—————Br OMe	III-17 MsO————————————————————————————————————
30	III-7 O————————————————————————————————————	III-18 MsO————————————————————————————————————
	III-8 MsO————————————————————————————————————	III-19 MsO———Br
35	III-9 MsO-C	III-20 HO Br
40	OMe OTI MeO OMe	III-21 MeO O MeO O
4 5	III-11 Br OBn MeO OMs OMs	III-22 MeO — — — — — — — — — — — — — — — — — — —

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111-23	OMe MsO————Br	III-34	OMe Br————OBn
	MeO CO₂Me		MeO OMs OTBS
	OMe		,OMe
111-24	MsO-(=)-Br	111-35	Br————————————————————————————————————
= 4			MeO OMs F
	MeO CHO		
	OMe OMe		OMe
111-25	MsO-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	III-36	Br—————OBn
	MeO CH₂OH		MeO OMOM OTBS
•	OMe		OMe
111-26	MeO-(Br	111-37	Br—()—OBn
			MeO O OH
	MeO ——OH		OMe
	OMe		
111-27	MsO-(Br	III-38	TfO-(OBn
	F MeO NHBoc		MeÓ ÖMs OMe
		111-39	TIO-(OBn
III-28	F=\\\Br		MeO NO₂
	MeÓ		OMe
****	OMe	III- 4 0	TIO-COMOM
111-29	MsO-()-OTI		MeO F
	F MeÓ		OMe
111-30	OMe	III- 4 1	TIO-()-NHBoc
M	leO ₂ C-{}		MeO F
	MeÓ _{OMe}		OMeO ₂
III-31	NC-(=)-OTI	111-42	T10-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-
			MeO
	MeO OMe		OHC OMe
111-32	O ₂ N—()—OTf	III-43	Tro-CD-OBn
	MeO		ک محر
	OMe		MeO OMs
111-33	MsO-{_}-OTf	111-44	(HO) ₂ B-(-)-OBn
	F MeO CHO		MeO OTBS OTBS

5	ш-45	MsO OH	III-56	MsQ OMe HO—Br MeO
10	III-46	MsO————————————————————————————————————	Ш-57	HO————————————————————————————————————
	Ш-47	HO——————Br Me Me	III-58	CHO HO——————Br OHC
	III-48 .	HO————Br EtO OH	Ш-59	MsO————————————————————————————————————
20	Ш-49	HO————————Br	111-60	MsO-W-Br Me OH
25	III-50	MsO OH	Ш-61	MsO-CHO MeO OMe
30	Ш-51	MsO — Br MeO OH	III-62	MOMOH ₂ C — OTI MeO CHO
35	III-52	MsO————Br	ш-63	MsO—OTf
40	Ш-53	MsO——————Br - OMs	Ш-64	HO-CI-OTI
45	III-54	MsO————————————————————————————————————	Ш-65	OMe B(OH) ₂
50	III-55	HO—————Br EtO OH	Ш-66	TBSO————B(OH) ₂

EP 0 933 346 A1

III-67	TBSO————————————————————————————————————	III-77 Br OBn
III-68	Me ₂ N-C-Me MeO MeO MeO	III-78 Tro
III-69	Me ₂ N————————————————————————————————————	III-79 TfO———OBn
ІП-70	TBSQ_OMe Me ₂ N-B(OH) ₂ MeO	III-80 Tro-CI OMe
Ш-71	Br Me OMe	III-81 Tro Me OMs OMs
111-72	Br—NMe ₂ OH	III-82 THO-WHE F
Ш-73	Br————————————————————————————————————	III-83 TrO OMe
Ш-74	Br—Et OH	III-84 TfO————————————————————————————————————
Ш-75	- Br — Me OH OMe	III-85 (HO) ₂ B————————————————————————————————————
Ш-76	Br — Me OH OH	III-86 (HO) ₂ B————————————————————————————————————

		,OMe)—		OMe
5	I-1	HO-	l-14	
	I-2	Meď ÖH ÖH OMe		Meo → O OMs Me ₂ N OMe
		MsO OMs OMs	l-15	MsO — O OMs
10	I-3	MsO-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)		MeO →O OMs Me ₂ N OMe
		MeO OMs OMs OMe	I-16	HO- HOO H
15	1-4			MeÓ ≻O ÒH Me _Z N OMe
	1.5	MeO OH OH OMe	i-17	MsO OMs F
20	I-5	F ₃ C MeO OMs OMs	l-18	HO————————————————————————————————————
	I-6	OMe)		MeO OH F F, OMe
		F ₃ C MeO OMs OMs OMe	l-19	Mso-()-()-()-()
25	1-7		I-20	MeO OMs OH
		F ₃ C MeO OH OH	1-20	MeO OMs OMs
30	1-8	MsO CO ₂ H	1-21	MsO-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)
	1-9	OMe OH		MeO OMs OMs F, OMe
35		MeO OH OH	I-22	но-{}-{}-{
	l-10	MsO-	1 00	MeO OH OH OMe
40	1.44	MeÓ CH-OH ÒMs OMe	I-23	MsO OMs Ch ₂ OH
40	l-11	MeO CH₂OH OMs	I-24	MsO-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)-(S)
	I-12	HO————————————————————————————————————		MeO OMs Me
45		MeO CH₂OH OH OMe	I-25	но-{}-{}-{}-{
1	I-13	Ms0-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-		MeÓ ÒH Me
50		MeO EO OH Me₂N		

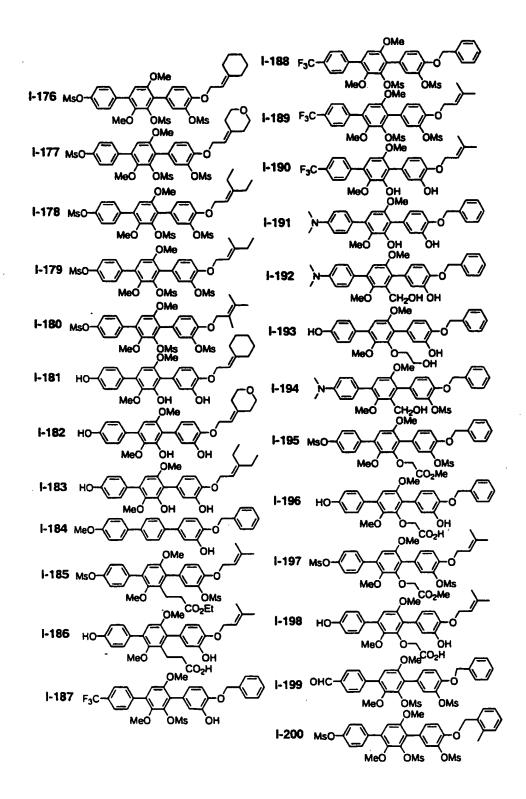
1-26 HO	I-39 HO OH OH
I-27 MsO	I-40 HO — Me
I-28 MsO	MeO OH OH OMe CI I-41 HO
I-29 но-С)-С)-ОН	MeO OH OH OMe Br
I-30 MsO————————————————————————————————————	H-42 MsO
I-31 HO-WHOO OH OH	H-43 HO
I-32 MsO OMs OMs OMs	I-44 MsO OMs OMs OMs OMe
I-33 HO MeO OH OH	H-45 HO-WHOO OH OH
I-34 MsO OMs OMs	I-46 HO————————————————————————————————————
I-35 HO	HeO OH OH OMe
I-36 MsO OMs OMs	I-48 HO OH OH OH
I-37 HO OH OH	I-49 HO OH OH OME OME
I-38 MsO OMs OMs	i-50 HO MEO OH OH

		HQ OMe)_ I-63 HG	OMe
5	i-51	HO-{}-{}-{}-{}-{}-{}-{}-{}-{}-{}-{}-{}-{}-	MeO OH OH
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	1-52		MeO OMs
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.,,		OMe 1-65	
	I-53	HO	MeÓ ÒMs } OMe }—
15		MeO OH O	
	I-54	HO-{\$\rightarrow\}-\frac{1}{2}	MeO OH
		MeO OMs OH L-67 HO-	OMe
20	I- 5 5	OME -	MeO OMs
	1-33	MeO OH OH	OMe OMe
		OMe POS MSO	MeO OH
25	I-56	H0-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-	MeO OH
		MeO OH OH I-69 MsO-	
	I-57		MeO OMe OMs
30		MeÓ OMs OMs I-70 MsO-	
	1-58		MeO OMs
		MeO OMs OMs I-71 HO	
35	1 50	OMe	MeO OH
	1-59	MeO OH OH I-72 MsO-	
		OMe C	MeO OMe F
40	I-60	I-73 HO-	
		O MeO OH OH	MeO F
45	i-61	0-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-	
45		MeO OMS OMS OMS	OMS OH
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		MeO OH OH	OMs OMs

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I-78	MeO OMe OH	I-91 MOMO——————————————————————————————————
1-79	MeO OMs	MeÓ ÖMOM ÖMOM OMe I-92 MeO
1-80		MeÓ Ò— ÒH OH
I-81	MeO OMs OMe	HeO OH OH OMe
I-82	MeO OH OH	I-94 HO————————————————————————————————————
1-83	MeO OCH ₂ CO ₂ Et	I-95 HO OH OH
I-84	MeO OMS CHO OMe	I-96 HO————————————————————————————————————
I-85	MeO OMs CO ₂ Et OMe	I-97 MsO-OMS OMS OMS
I-86	MeO OH CO ₂ Et OMe	I-98 MsO OMs OMs
I-87	MeO OMs CH₂I HO OMe	1-99 MsO OMS OMS
1-88	MeO OMe OMs	I-100 MsO OMs OMs OMs
	MeÓ OMs OCOPh	•

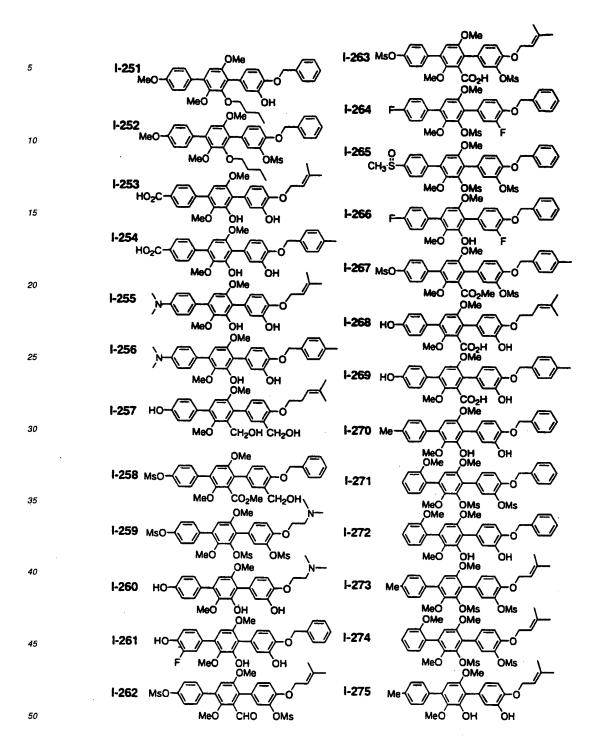
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10	I-152 OME OME OHO OH	I-165 HO OMOM OH
10	I-153 HO — OH OH	J-166 MsO OH OMs
15	I-154 MsO————————————————————————————————————	I-167 MsO
20	I-155 HO———————————————————————————————————	H-168 HO OME
25	I-156 MsO OMs OH OMe OAc	MeO O OH OMe I-169 MsO
	I-157 MsO OMs OMs	MeO O OMS OMe
<i>30</i>	I-158 MsO OMs OMs OMs OMs OMs	MeO O— OH OMe
35	I-159 MsO OMs OCH ₂ CO ₂ Me OMe	MeO OMs OMs OMe OMs
40	I-160 HO OH OCH ₂ CO ₂ H	MeO OH OH OMe
	I-161 MsO OMs OCH ₂ CO ₂ Me	MeO OH OH OMe
45	I-162 HO	I-174 но — — — — — — Вг
<i>50</i>	MeÓ OH OCH ₂ CO ₂ H OMe OMO OMO OH	I-175 HO OH OH

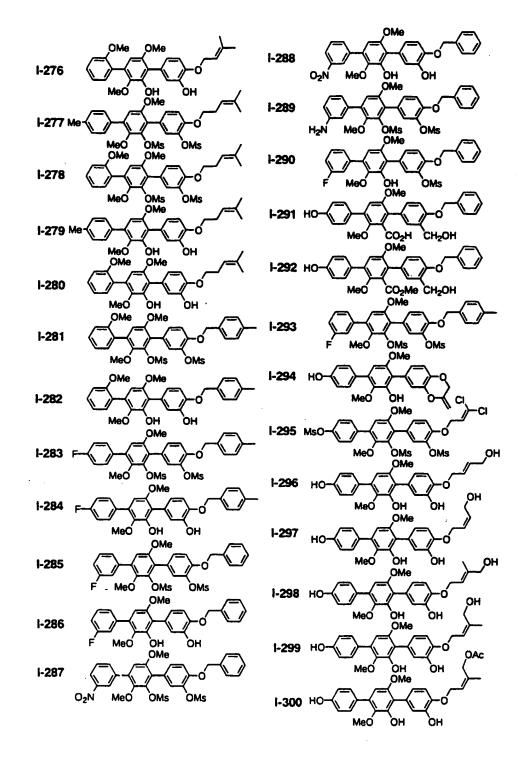


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5	I-201 MsO
	MeO OMs OMS OMS OMS OME OH
10	MeO OMs OMs OMs OMs OMe OMe
15	I-203 MsO OMs OMs OMs OMs OMs OMs OMs OMs
	I-204 MsO OMs OMs OMs OMs OMs OMs OMs
20	I-205 MsO OMs OMs OMs OMS
	I-206 но————————————————————————————————————
25	I-207 HO OH OH OH OME
30	MeO OH OH OH OMS
	F ₃ C MeO OH OH OH OME I-221 MsO
35	MeO OMS OMS OMS OMS OMS OMS OMS OMS OMS OM
40	I-210 HO OMS OMS OMS OMS
	I-211 HO OH OH OH
45	I-212 HO MEO OH
50	MeO OH OH I-225 HO MeO OH OH

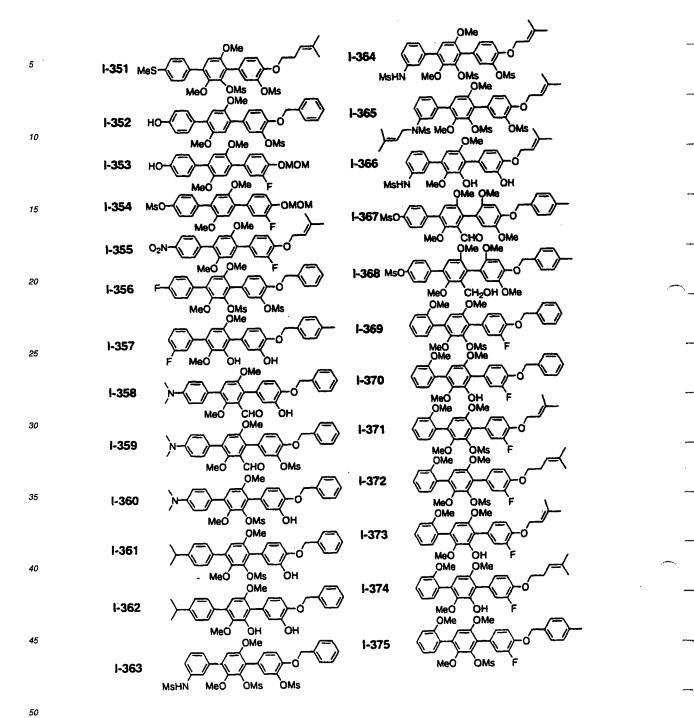
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I-226 HO-√¯)-√	OMe		I-239 MeO ₂ C	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	√ _>
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/= /	OMe	~~~	I-240 N	OMe	-
I-227 HO			/ 🖤	NeO OMs OMs	
MeO	OH OH	<u>/</u> =<	\	OMe /	~~~
I-228 MsO-		`	I-241 N		
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I-229 но-{-}		,	1-242 N-()	+	
MeC	Me OH	· _	_	MeÓ ÖMS ÖMS OMe	<u></u>
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1-232 MeS-				OMe	/=\
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I-233 MeS	OMe			MeO OMs OMs OMe	
MeC		-	I-246 MsO-		, ≺(_)
I-234 MeO ₂ C ⟨¯¯⟩-	OMe			MeO OMs CO ₂	Me >_
1-234 MeO ₂ C	OMs C	-0)Ms	1-247 MsO-		<i>,</i> //
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M	eO OMs	OMs			

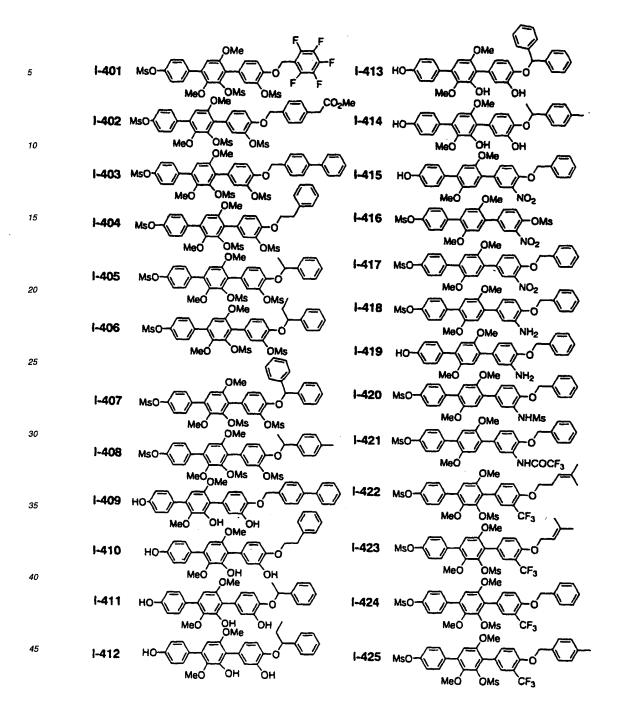




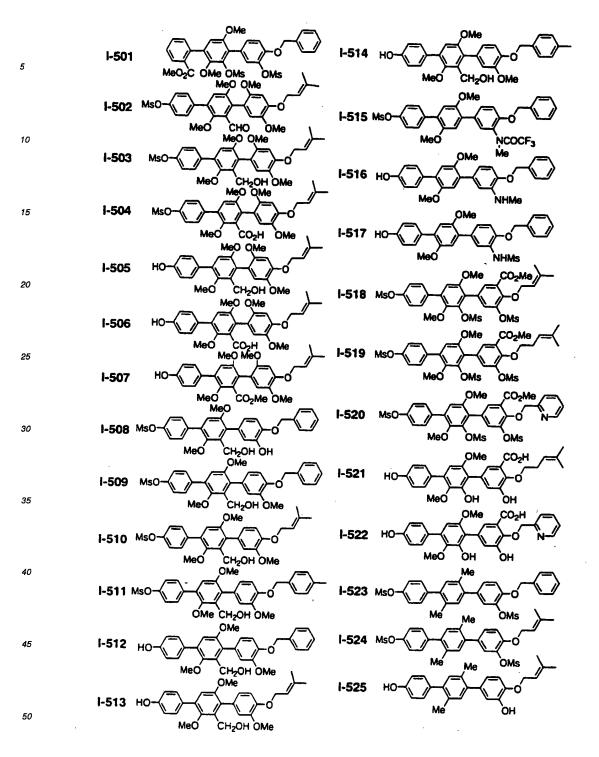
EP 0 933 346 A1

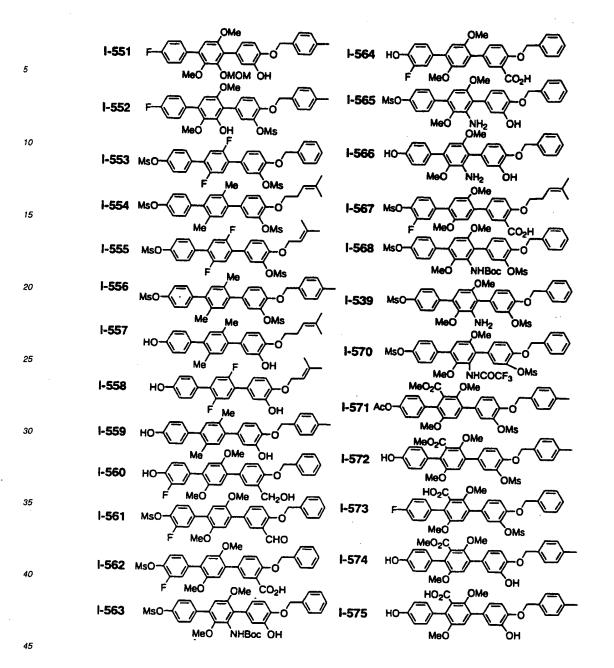
I-326 HO OME CO ₂ H I-339 HO OME
MeO OH OH MeO OMS
1-327 MsO - OME NO2 I-340 MsO - OME NO2
MeO OMS OMS HO ₂ C OMe O ₂ N OMe NO ₂
I-328 HO————————————————————————————————————
MeO OH OH HO ₂ C OMe
1-329 MsO OH MeO OH
I-330 MsO - I-343 HO - I-343 HO
MeO CO ₂ Me F MeO OMs OHC OMe
I-331 MsO - I-344 AcO - I-344 AcO
MeO CO ₂ Me F HO ₂ C OMe
I-332 HO NeO CO ₂ H F NeO OMs
1-333 MsO — OMe
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I-334 MsO CO ₂ H OH
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1-335 HO MeO CO ₂ H OH OMeO CO ₂ H OH
I-336 но————————————————————————————————————
MeO CO ₂ H F OMe
I-337 HO — I-350 MeS — MeO OMS OMS
MeÓ CO₂H F OHC OMe
I-338 HO MeO OMs
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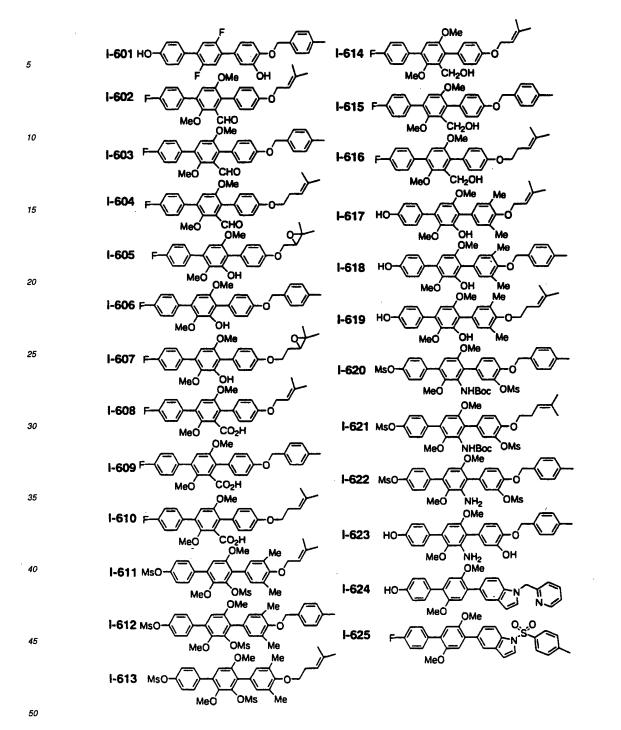


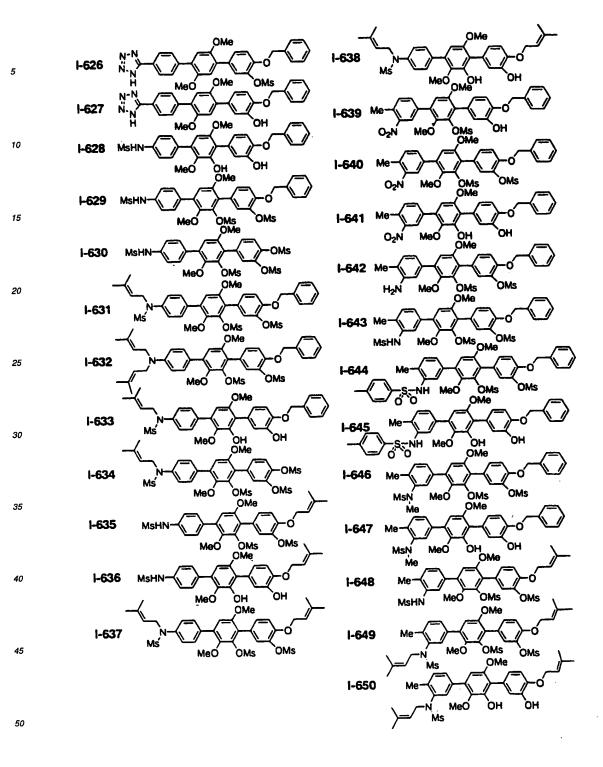


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MeO OMe F 1-477 H₂N-C-N	I-490 MeO ₂ C
MeO OMe F	MeO OMs OMe
I-478 HO MeO OMe F	I-491 HO ₂ C-
I-479 MsO NHBoc	MeO OMe OMs
MeO OMe F	I-492 NC-
I-480 MsO MeO OMe F	I-493 NC-
I-481 MsO-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	MeO OMe OMs
MeO OMe F	I-494 MeO ₂ C-\
I-482 MsO Ne F	MeO OMe OMs I-495 MeO₂C → OMe
I-483 N-N-NHBoc	I-495 MeO₂C MeO OMs OMs
MeO OMe F	I-496 N-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-)-(-
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I-484 N- NH NH NH NH NH	I-496 N- MeO CO ₂ Me OMs
I-484 N MeO OMe F NH O NH N-S NH O OME F	I-496 N- MeO CO ₂ Me OMs OMe
I-484 N- MeO OMe F N-S- N-S- N-S- N-S- N-S- N-S- N-S- N-	I-496 N————————————————————————————————————
I-484 N-WeO OME F O OME O OME F O OME	I-496 MeO CO ₂ Me OMs OMe I-497 MeO CO ₂ Me OMs OMe
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5	I-701 MsO OMe OMs	I-714 MsO OMs OMs OMs OMe N-N SMe
	I-702 F	I-715 MsO OMs OMs
10	I-703 FOR Me OH	I-716 MsO OMs OMs ACHN
15	I-704 F————————————————————————————————————	J-717 HO-OHOHOHOHOHOHOHOHOHOHOHOHOHOHOHOHOHOH
20	I-705 MsO — MeO OH OH	I-718 HO OH OH I
25	I-706 MsO OH OMS	I-719 HO OH OH
	I-707 MOMOCH ₂ ————————————————————————————————————	I-720 MsO
30	I-708 MsO OMOM OMS	MeO OMs OMs OMe I-721 MsO
35	I-709 HOCH ₂ ————————————————————————————————————	MeO OMs OMs NHAc OMe
40	I-710 HO MeO OH OH	MeO OMs OMs NHMs
ar.	I-711 MsO OMs OMs S	I-723 MsO OMs OMs N Ms
4 5	I-712 HO OH OH	I-724 MsO OMs OMs Ms N Me
50	I-713 HO OH OH	I-725 MsO MeO OMS OMS

•	, OMe
5	I-751 F
•	MeÓ OMS OMOM OME OME OME I-764
10	I-752 MeO OH OMOM OME OH OHO NH
15	1-753 F MeO OMs OH OEt 1-766 HO N-S-
15	1-754 MsO — MeO F O OMe F
20	1-755 HO-OME
	EtO OH OH I-768 AcHN OH OH OH OH OMe
25	EtO OMs OMs I-769 AcHN F MeO OMs OMs OMs OMs
30	I-757 MsO OMs OMs I-770 AcHN OMS OMS OMS
	I-758 HO OH OH I-771 AcHN F MeO OMs OMs
35	I-759 HO-OH OH OH I-772 ACHN-OME
40	I-760 MsO OMS OMS OMS OMS OMS OMS OMS OMS OMS OM
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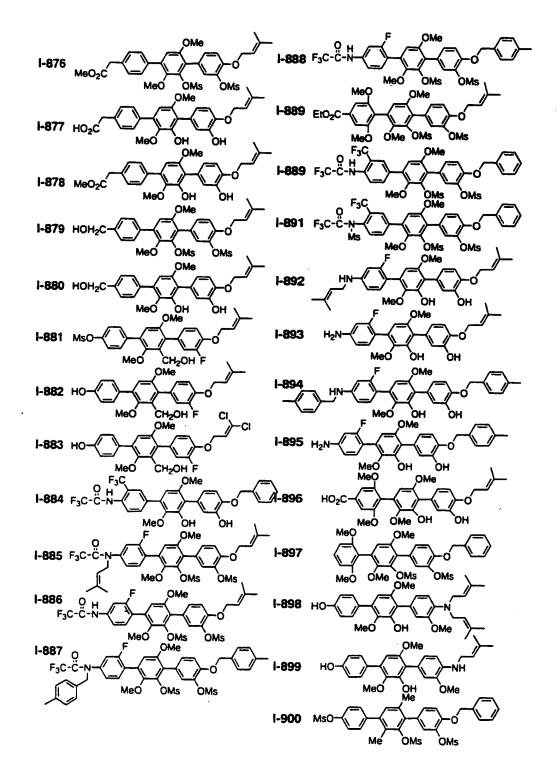
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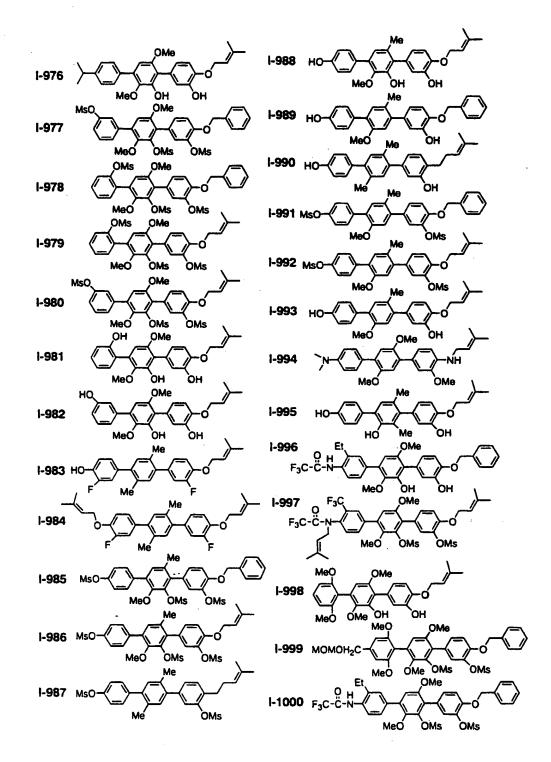
MeQ 1-838 EtO2C 1-826 MsOоме Он **OMs OMe** 1-827 HO-1-839 HO OMe ю HO' 1-840 HO 1-828 HO-`OMs HO' OMe Ю OMs 1-829 MsO-I-841 HO HO' ОMe èMO OMs I-830 MsO-OH OMe `OMs MeÓ **OMe** ÒMs O H I-843 F₃C-C-N-1-831 HO `OMs `OMs MeÓ MeQ ОМе MeÓ OMe. но́ 1-844 EtO2C 1-832 HO-OMe OMs `OMs MeÓ **OMe** HO 1-845 MsO-1-833 MsO `OMs `OMs I-846 HO 1-834 H₂N-I-847 HO 'ОН MeÓ ⁰ H **I-835** F₃C-C-N--848 MsO HO' MeÓ I-849 MsO 1-836 MsO-`OMs `OMs Me `OMs 1-850 HO 1-837 MsO `OMs ÒMs `OMs `OMs Mé

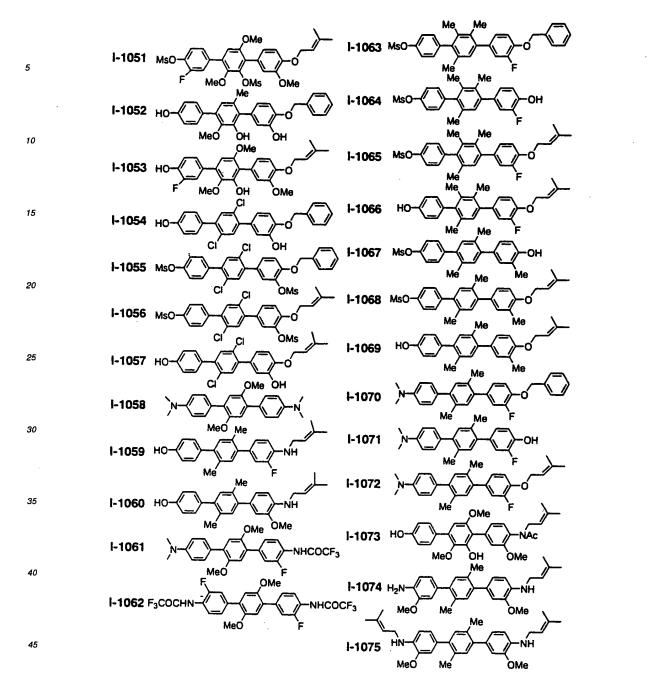


	NA	
1-926	N- NHCOCF ₃	I-939 MOMO
I- 92 7	Me Me F	MeÓ OMe OH OH MeO OMe
I-928	Me Me F	MeO OMe OMs OMs
1-929	N-C-NH ₂ Me OMe CF ₃	HN OH OH OH OME
1-930	MsO OMs OMsBr	I-942 Me OMs OMs OMs
I-931	HO————————————————————————————————————	I-943 H ₂ N
I- 93 2	HO————————————————————————————————————	I-944 H ₂ N
1-933	MeO OH OH MeO OH HN	F MeO OH OH Me I-945 MsO—OH
l-934	HO————————————————————————————————————	Mé Me F Me I-946 MsO-OH
I - 935	HO OH HN-AC	Me Me F Me I-947 MsO
I- 93 6	OMe	I-948 HO
1-937	OMe CI CI	I-949 NOME OH F
I-938	MeO OH F Me Me MsO Me OMs	1-950 N-OME OME F

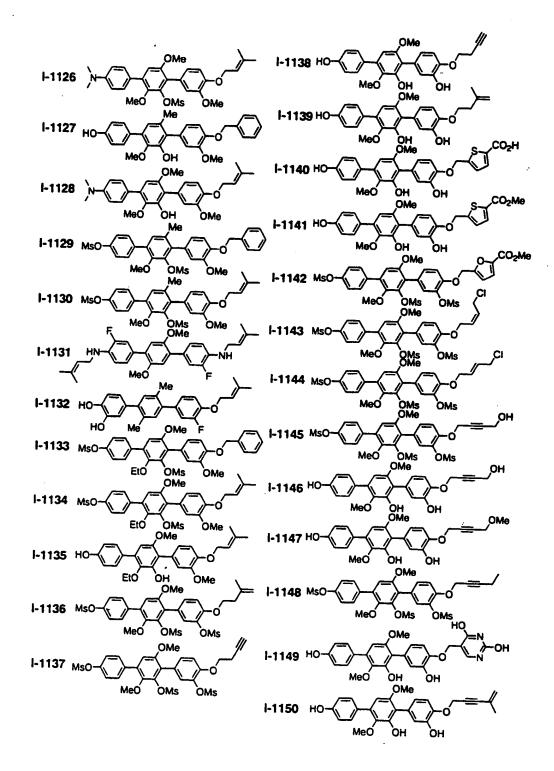
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10	I-953 N-OH F	Med OH OH OH OMe
15	I-954 N-OH F	MeO OH OH Me OMe I-966
20	I-955 HO Me Me	MeO OH OH F Me → F
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25	I-957 CH ₃ O-C	Ме ОМе О Б Д О О О О О О О О О О О О О О О О О
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35	I-959 HO MeO OH OH	I-971 MsO Me OMs
	I-960 HO	I-972 Me OMe
40	I-961 HO	I-973 HOH ₂ C
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50	Me OMe	I-975 MeO OMs OMs OMs

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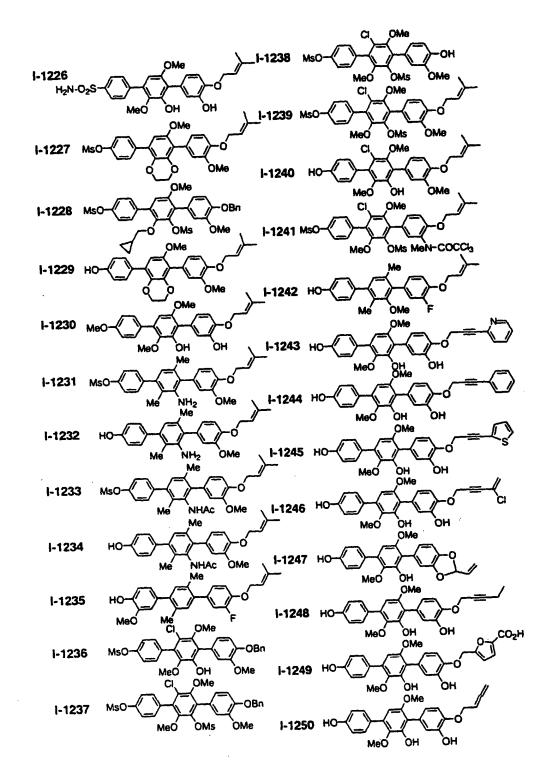
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I-1076 MsO OMs OH	I-1088 HO———————————————————————————————————
I-1077 HO-CF3 OMe	I-1089 MsO OMS OiPr
I-1078 HO	I-1090 MsO OMs Ci
I-1079 MsO-CF ₃ OMs CF ₃ OMe	I-1091 HO
I-1080 MsO-OHOMS	MeÓ OH OiPr OMe
I-1081 HO MeO OH OH	MeO OMs OiPr OMe
I-1082 MsO OMe	MeO OH OiPr
OMs OMe OMe	H-1094 HO OH CI OMe
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CF ₃ OMe	I-1096 Ne F
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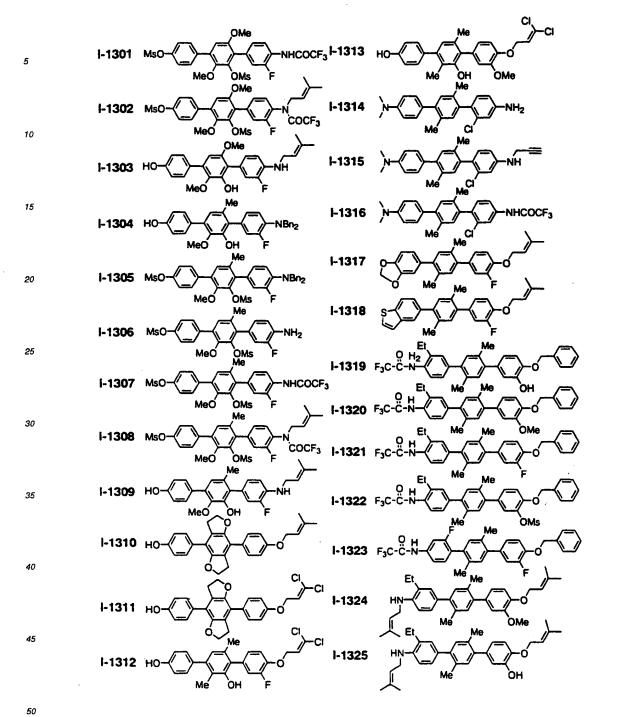
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Table 1

50	45	40	35	30	25	20	15	10	5
1::11	m.p.201-203°C HINMR(DMSO-46) & 3.44(s,3H),3.48(s,3H),3.62(s,3H),3.92(s,3H),7.09(s,1H),7.40-7.53(m,2H),7.65-7.78(m,2H)	la) δ 3.44(s,3H)	,3.48(8,3H),3.6	32(8,311),3.92(6	1,3H),7.09(s, I)	H),7.40-7.53(m	,211),7.65-7.7	8(m,21I)	
111.2	HINMR(CDCL) 3 3.47(8,3H),3.94(8,3H),7.13-7.24(m,3H),7.50-7.59(m,2H),10.41(8,1H) IR(KBr)1700,1562,1479,1438,1393,1226,1199,1180,1161,1076,1047cm ¹	JCl ₃) & 3.47(8,3H),3.94(8,3H),7.13-7.24(m,3H),7.50-7.59(m,2H) J0,1562,1479,1438,1393,1226,1199,1180,1161,1076,1047cm	94(s,3H),7.13-7 393,1226,1199,	7.24(m,311),7.5 1180,1161,10	.0-7.59(m,2H), 76,1047cm	,10.41(s,1H)			
H-3	m.p.181-182°C ¹ HNMR(CDCl ₃) & 3.21(s,3H),3.40(s,3H),3.49(s,3H),3.90(s,3H),4. ² H) ¹ R(KBr) 1504,1467,1370,1235,1152,1038,1010,870,846,785cm ⁻¹	3.21(s,3H),3.77,1370,1235,11	40(s,3H),3.49(s	s,3H),3.90(s,3F	I),4.81(8,2H),	4.85(8,2H),6.86	(s, 111), 7.32-7	2°C OCl ₃) & 3.21(s,3H),3.40(s,3H),3.49(s,3H),3.90(s,3H),4.81(s,2H),4.85(s,2H),6.86(s,1H),7.32-7.40(m,2H),7.60-7.68(m, 94.1467,1370,1235,1152,1038,1010,870,846,785cm ⁻¹	.68(m,
111.4	1HNMR(CDCIs) & 2.95(8,3H),3.18(8,3H),3.21(8,3H),3.41(8,3H),3.91(8,3H),6.84(8,1H),7.37(d,J=8.9Hz,2H),7.63(d,J=8.9Hz,2H)	2.95(s,3H),3.	18(s,3H),3.21(s	,3H),3.41(s,3F	I),3.91(s,3H),(3.84(s, 1H), 7.37	(d,J=8.9Hz,2	H),7.63(d,J=8.9H	(z,2H)
111.5	m.p.140-141°C HINMR(CDC33) & IR(KBr)1446,1420	1°C (CE) & 3.21(8,311),3.45(8,311),3.48(8,311),3.96(8,311),7.40(d,J=8.9Hz,211),7.54(d,J=8.9Hz,211) 16,1426,1409,1370,1362,1184,1153,1029,973,920,870,849,776cm ⁻¹	15(4,3H),3.48(4 162,1184,1153,	,311),3.96(8,31 1029,973,920,	l),7.40(d,J=8.9 870,849,776cı	9Hz,2H),7.54(c m ⁻¹	1,J=8.9Hz,2H		·
9.111	Tokyo Kasei Kog	ei Kogyo Co., Ltd.							
111.7	HINMR(CDCl ₃) & :3.51(8,3H),3.92(8,3H),6.05(8,2H),6.92(d,J=8.1Hz,1H),7.02(d,J=8.1Hz,1H),7.07(8,1H),7.18(8,1H),10.40(8,1H)	:3.51(a,3H),3.0)2(s,3H),6.05(s	,2H),6.92(d,J=	-8.1Hz,1H),7.()2(d,J=8.1Hz,)	IH), 7.07(s, 1H),7.18(6,1H),10.4()(a,1H
8111	HNMR(CDCl ₃) δ	(Cl ₃) δ 3.20(s, 3H), 3.77(s, 3H), 3.90(s, 3H), 6.86(s, 1H), 6.98(s, 1H), 7.32·7.37(m, 2H), 7.51·7.56(m, 2H)	7(s,3H),3.90(s	,3H),6.86(s,1F	I).6.98(s,1H),7	1.32-7.37(m,2H	L),7.51-7.56(m	,2H)	
6-111	HNMR(CDCL ₁₃) & 3.20(s,3H),3.34(s,3H),7.37-7.47(m,3H),7.53-7.63(m,3H),7.71(d,J=2.1Hz,1H)	3.20(s,3H),3.3 [,]	4(s,3H),7.37-7.	47(m,3H),7.55	1-7.63(m,3H),7	7.71(d,J=2.1Hz	(H1)		
11.10	HINMR(CDCl3) ô	Cl ₃) δ 3.76(8,3H),3.90(8,3H),6.85(8,1H),6.97(8,1H),7.08-7.15(m,2H),7.42-7.49(m,2H)	0(s,3H),6.85(s	,1H),6.97(s,1E	I),7.08-7.15(m	,2H),7.42-7.49	(m,2H)		
11-11	oil 'HNMR(CDCl ₃) δ	Cl ₃) δ 2.72(8,3H),3.11(8,3H),3.75(8,3H),3.92(8,3H),5.17(8,2H),7.05-7.16(m,2H),7.24-7.50(m,2H)	1(s,3H),3.75(s,	,3H),3.92(e,3H	l),5.17(s,2H),7	.05-7.16(m,2H),7.24-7.50(m	,2H).	

Table 2

111-12	oil HINMR(CDCL ₃) & 3.51(s,3H),3.70(s,3H),3.86(s,3H),3.89(s,3H),5.28(s,2H),6.65(s,1H),6.97&7.47(Albq,J=8.6Hz,4H)
	m.p. 120-122°C (HINMR(CDCL) & 3.20(s,3H),3.53(s,3H),3.70(s,3H),3.89(s,3H),5.28(s,2H),6.63(s,1H),7.32-7.37(m,2H),7.30-7.01
111-13	[11]-13 (m,211) [18](KBr)1505,1468,1427,1375,1237,1175,1153,1100,1072,1003,972cm ⁻¹
	m.p.146-147°C
111.14	411NMR(C:DCU3) & 3.85(8,311),6.94-7.01(m,211),7.38-7.56(m,611)
	IR(KBr)1603,1522,1481,1288,1255,1036cm '
111.15	1HNMR(CDCl ₃) § 3.07(s,6H),3.49(s,3H),3.92(s,3H),6.95(brs,2H),7.20(s,1H)7.51(d,J=8.7Hz,2H),10.42(s,1H)
111-16	111NMR(CDCl ₃) & 3.48(s, 311), 3.50(s, 311), 3.92(s, 311), 6.81(s, 111), 7.70(s, 411)
111.17	$ \text{HNMR}(\text{CDC}(1_3) \ \delta \ 3.24(8,3\text{H}), 3.49(8,3\text{H}), 3.94(8,3\text{H}), 7.21(8,1\text{H}), 7.42(d,J=8.4\text{Hz},2\text{H}), 7.65(d,J=8.4\text{Hz},2\text{H}), 10.41(8,1\text{H})) $
	m.p.88-89°C
111.18	1HNMR(CDC1 ₁₃) ô 2.20(s,3H),2.38(s,3H),3.19(s,3H),7.06(s,1H),7.33(s,4H),7.45(s,1H)
	IR(KBr)1479,1366,1195,1173,1151,970,865,850,796cm ⁻¹
	in.p.72.73℃
111-19	1HNMR(CDC13) δ 3.20(ε,3H),7.20(dd,J=6.6,8.4Hz,1H),7.35-7.44(m,3H),7.53-7.60(m,2H)
	IR(KBr)1514,1481,1364,1335,1182,1144,979,870,798cm ⁻¹
	m.p.144.146°C
111-20	1HNMR(CDCl ₃) δ 3.45(ε,3H),3.89(ε,3H),4.99(brε,2H),6.19(ε,1H),6.42(ε,1H),6.88-6.94(m,ZH),7.44-7.49(m,ZH)
	IR(KBr)3471,3392,29863,1612,1596,1461,1410,1223,1175,1099,1079,1011cm-1

Table 3

15.

	oil HINMR(CDCE) & 1.09(t,J=7.5Hz,3H),1.82-1.94(m,2H),3.58(s,3H),3.86(s,3H),4.06(t,J=6.6Hz,2H),6.63(s,1H),6.94-6.99(m,2H),
17:11	7.44-7.49(m,211) IR(film):3100-2800(br), 1609, 1583,1513,1466, 1423,1401,1378,1291,1249,1232,1178,1127,1097,1034,1012cm ¹
	m.p.83.5-84.5°C
111.22	¹IINMR(CDCl:a) δ 3.20(br,1H),3.54(s,3H),3.85-3.90(m,2H),3.86(s,3H),3.90(s,3H),4.29-4.32(m,2H),6.66(s,1H),6.95-7.00(m,2H),7.45-7.50(m,2H)
	IR(KBr)3600-2800(br), 1608, 1583, 1513, 1467, 1441, 1421, 1398, 1365, 1290, 1247, 1178, 1133, 1097, 1079, 1028, 1007cm ⁻¹
	m.p.99-101°C
111.23	$^{1}\text{HNMR}(\text{CDC}1_{3}) \ \delta \ \ 3.20(s, 3\text{H}), 3.39(s, 3\text{H}), 3.91(s, 3\text{H}), 3.99(s, 3\text{H}), 6.89(s, 1\text{H}), 7.37(d, J=8.7\text{Hz}, 2\text{H}), 7.64(d, J=8.7\text{Hz}, 2\text{H})$
	IR(KBr)1747,1466,1367,1348,1153,1059,968,859,794cm ⁻¹
111.24	1HNMR(CDCl ₃) δ 3.22(s,3H),3.45(s,3H),3.94(s,3H),7.04(s,1H),7.32-7.43(m,2H),7.58-7.69(m,2H),10.42(s,1H)
111-25	1HNMIR(CDCl3) § 2.46(broad, 1H), 321(s, 3H), 3.43(s, 3H), 3.90(s, 3H), 4.94(s, 2H), 6.83(s, 1H), 7.42-7.51(m, 2H), 7.67-7.68(m, 2H)
	m.p.109·110°C
11.26	$^{1}\text{HNMR}(\text{CDCI}_3) \ \delta \ 1.97 (\text{br}, 1\text{H}), 3.21 (t, J=6.6 \text{Hz}, 2\text{H}), 3.86 (s, 3\text{H}), 3.89 (s, 3\text{H}), 3.90 (t, J=6.9 \text{Hz}, 2\text{H}), 6.76 (s, 1\text{H}), 6.95 \cdot 7.00 (\text{m}, 2\text{H}), 7.49 \cdot 1.00 (\text{m}, 2\text{H}), 1.49 \cdot 1.00 (\text{m}, 2\text{H}), 1.49 \cdot 1.00 (\text{m}, 2\text{H}), 1.49 \cdot 1.00 (\text{m}, 2\text{H}), 1.40 \cdot 1.00 (\text{m}, 2$
	7.53(m,2H) 10/7/ 10/7 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/10 10/1
	foam
111.27	$^{1}\text{IIINMR(CDCI_3)} \delta \ \ 1.52 (8,911), 3.20 (8,311), 3.41 (8,311), 3.90 (8,311), 6.16 (8,111), 6.76 (8,111), 7.35 (4, J=8.7 Hz, 2H), 7.61 (4, J=8.7 Hz, 2H)$
_	IR(KBr)3371.1718.1505.1497.1367.1241.1151.872cm ⁻¹

Table 4

	m.p.167.170°C
111.28	HINMR(CDCha) & 2.73(8,311),3.74(8,311),3.92(8,311),7.08-7.17(m,311),7.31-7.36(m,211)
	IR(CHCH ₃)2934, 1593, 1560, 1512, 1477, 1436, 1411, 1372, 1157, 1107, 1076, 997, 958, 892, 839, 815cm ⁻¹
	m.p.140-142°C
	111NMR(CDCh3) § 3.27(8,3H),3.79(8,3H),3.90(8,3H),6.86(8,1H),6.97(8,1H),7.29(ddd,J=8.4,2.2,0.9Hz,1H),7.39(dd,J=11.0,2.2Hz
62-111	,1II),7.43(t,1=8.4Hz,1H)
	H((KHr)1504, 1421, 1344, 1225, 1208, 916, 824cm ⁻¹
111-30	111NMR(CDCl ₃) & 3.77(s,3H),3.91(s,3H),3.95(s,3H),6.87(s,1H),7.01(e,1H),7.56(d,J=8.1Hz,2H),8.09(d,J=8.1Hz,2H)
111-31	¹ HINMR(CDCl ₃) δ 3.78(s,3H),3.91(s,3H),6.88(s,1H),6.97(s,1H),7.60(d,J=8.1Hz,2H),7.71(d,J=8.1Hz,2H)
	m.p.147·148°C
111.32	1HNMR(CDCh;) § 3.79(s,3H),3.92(s,3H),6.89(s,1H),7.01(s,1H),7.64·7.69(m,2H),8.26-8.31(m,2H)
	IR(KBr)3600-2800(br), 1595, 1511, 1490, 1422, 1354, 1249, 1215, 1145, 1106, 1032cm ⁻¹
	1HNMR(CDCl3) & 3.31(s,3H), 3.53(s,3H), 3.94(s,3H), 7.19(s,1H), 7.39(ddd,J=8.3,2.3,1.0Hz,1H), 7.39(dd,J=10.3,2.3Hz,1H),
EE-111	7.43 (t,J=8.3Hz, 1H), 10.40(8,1H)
	1HNMR(CDCl ₃) & 0.13(s,6H),0.97(s,9H),2.51(s,3H),3.73(s,3H),3.93(s,3H),5.09(s,2H),6.84-6.99(m,2H),6.89(s,1H),7.05(s,1H),7.
111-34	29.7.48(m,5H)
	m.p.124.128 C
111.35	
	IR(CHCl ₃)2930,1607,1517,1480,1369,1148,1118,1082,1025,969,872cm ⁻¹

Table 5

	-	(C), /			T	
5),7.30-7.47(m	5.16(8,2H),5 <u>4</u>	48(m,6H),7.6	.63(dd,J=2.4,		.7Hz,1H)
10	88-6.94(m,3H)	1),3.86(s,611),5	[z,1H],7.37-7.4	.7.61(m,7H),7.	H)	2H),8.13(t,J=8
15),5.08(s,2H),6.	1,2H),3.70(8,3H	,7.11(d,J=8.7F	.7Hz,1H),7.31	7.16-7.31(m,3)),7.21-7.29(m,: 137,1105,1029
20	DCh.) & 0.13(s,6H),0.96(s,3H),3.01(s,3H),3.69(s,3H),3.86(s,3H),4.81(s,2H),5.08(s,2H),6.88-6.94(m,3H),7.30-7.47(m, 23,2932,2858,1579,1512,1471,1381,1264,1120,1083cm ⁻¹	DCh.) & 0.78(t,J=7.5Hz,3H), 1.03-1.25(m,2H), 1.38-1.47(m,2H),3.68-3.72(m,2H),3.70(a,3H),3.86(a,6H),5.15(a,2H),5.65.14(dd,J=1.8,8.4Hz,1H),6.86(a,1H),6.95-6.97(m,2H),7.36-7.46(m,5H) 3543,3200-2800(br),1587,1511,1465,1412,1376,1285,1248,1118,1081,1031cm	m.p.104-105°C !HNMR(CDCl ₃)	m.p.134-136°C HNMR(CDCl ₃) & 3.78(s,3H),3.91(s,3H),5.29(s,2H),6.86(s,1H),6.97(s,1H),7.17(d,J=8.7Hz,1H),7.31-7.51(m,7H),7.63(dd,J=2.4, 3.7Hz,1H),8.01(d,J=2.4Hz,1H) IR(KBr)3434,1620,1532,1494,1413,1280,1222,1206,1133,1108,1037cm ⁻¹	m.p.100-101°C ¹ HNMR(CDCl ₃) δ 3.55(8,3H),3.77(8,3H),3.90(8,3H),5.26(8,2H),6.84(8,1H),6.97(8,1H),7.16-7.31(m,3H) ¹ R(KBr)3600-2800(br), 1524,1503,1449,1401,1380,1268,1246,1222,1200,1156,1126,1098,1078,1030cm	n.p.109-110°C 'HNMR(CDCl ₃) & 1.54(e,9H),3.76(e,3H),3.90(e,3H),6.75(br,1H),6.84(e,1H),6.97(e,1H),7.21-7.29(m,2H),8.13(t,J=8.7Hz,1H) IR(KBr)3600-2800(br),1720,1593,1531,1509,1427,1393,1245,1223,1214,1201,1162,1137,1105,1029cm ⁻¹
25	!9(s,3H),3.86(s	oil HINMR(CDCE) & 0.78(t.J=7.5Hz,3H),1.03-1.25(m,2H),1.38-1.47(m,2H),3.68-3 3(s,1H),6.81(dd,J=1.8,8.4Hz,1H),6.86(s,1H),6.96-6.97(m,2H),7.36-7.46(m,5H) IR(CHzCl):3543,3200-2800(br),1587,1511,1465,1412,1376,1285,1248,1118,10	7(6,2H),6.84(6,	m.p.134-136°C ¹ HNMR(CDCl ₃) δ 3.78(s,3H),3.91(s,3H),5.29(s,2H),6.86(s,1H),6.97(s,1H), 8.7Hz,1H),8.01(d,J=2.4Hz,1H) IR(KBr)3434,1620,1532,1494,1413,1280,1222,1206,1133,1108,1037cm ⁻¹	3(8,2H),6.84(8,1	(br,1H),6.84(s
30	oil HINMR(CDCla) & 0.13(s,6H),0.96(s,3H),3.01(s,3H),3.69(s,3H),3.86(s 5H) IR(KBr)3023,2932,2858,1579,1512,1471,1381,1264,1120,1083cm ⁻¹	03-1.25(m,2H) HH),6.96-6.97(t	3.90(s,3H),5.1 364,1246,1216	5.29(s,2H),6.86	3.90(s,3H),5.26	3.90(s,3H),6.7E
35	6H),0.96(s,3H) 579,1512,1471	=7.5Hz,3H), L. Iz,1H),6.86(s,	iH),3.77(s,3H),	H),3.91(s,3H), ,1H)	H),3.77(8,3H),	H),3.76(8,3H),3
40	1Ch) & 0.13(s, 13, 25)	Cla) & 0.78(t,d (dd,d=1.8,8.41 543,3200-2800	.tc Cl ₃) δ 3.11(s,3 ,1H) -2800(br),150	m.p.134-136°C ¹ HNMR(CDC! ₃) δ 3.78(s,3H),3 8.7Hz,1H),8.01(d,J=2.4Hz,1H) IR(KBr)3434,1620,1532,1494,1	1°C (Cl ₃) δ 3.55(8,3) 0-2800(br),152.	C 2la) & 1.54(s,9) -2800(br),172(
45	oil HINMR(C) 5H) IR(KBr)30	0il HINMR(CI 3(s, 1H), 6.8 IR(CII:3CI);	m.p.104-105°C 'HNMR(CDCl ₃) 1(d,J=2.4Hz,1H) IR(KBr)3600-28	m.p.134-136°C 'HNMR(CDC): 8.7112, 111),8.01 IR(KBr)3434,1		
50	98:-1	111.37	111-38	11-39	II-40	11-41

Table 6

111-12	foam HNMR(CDCL ₃) & 2.36(s,3H),3.74(s,3H),3.88(s,3H),6.69(dd,J=0.6,3.6Hz,1H),6.85(s,1H),6.99(s,1H),7.24-7.27(m,2H),7.23(dd,J =1.8,8.711z,1H),7.60(d,J=3.6Hz,1H),7.64(d,J=1.2Hz,1H),7.80-7.83(m,2H),8.02(d,J=8.4Hz,1H) IR(KBr)3600-2800(br),1508,1463,1444,1421,1373,1246,1216,1176,1132,1093,1038cm ⁻¹
111-43	foam HINMR(CDCl ₃) & 3.14(s,311),3.51(s,311),3.93(s,311),5.20(s,211),7.17(d,J=8.4Hz,1H),7.20(s,1H),7.38(m,6H),7.59(d,J=1.8Hz,1H),10.40(s,1H) IR(CHCl ₃)2941,1703,1613,1603,1580,1513,1475,1426,1372,1295,1264,1169,1137,1112,1088,1044,971,954,932,838cm ⁻¹
111.44	·HNMR(CDCl ₃) δ 0.20(s,6H),0.13(s,6H),0.77(s,9H),0.97(s,9H),3.73(s,3H),3.83(s,3H)),5.08(s,2H),6.06(s,2H),6.88-6.96(m,3H),7.01(s,1H),7.30-7.49(m,5H)
111-45	III-45 IIR(KBr)3410,1460,1422,1362,1146,1037,874,915,787cm ⁻¹
111-46	mp123·124°C 1HNMR(CDCL ₃) δ 2.48(brs, 1H), 3.21(s, 3H), 3.43(s, 3H), 3.94(s, 3H), 4.93(brs, 2H), 6.83(s, 1H), 7.37(d, J=9.0Hz, 2H), 7.63(d, J=9.0Hz, 2H)) J=9.0Hz, 2H) IR(KBr)3524,1463,1352,1233,1152,1009,979,869cm ⁻¹
111-47	

Table 7

	io
9	HNMR(CDCL) & 1.14(t, J=6.9Hz, 3H), 1.46(t,J=6.9Hz, 3H), 3.58(q,J=6.9Hz, 2H), 3.58(q,J=6.9Hz, 2H), 6.19(e,1H),
111-48	6.41(s, 1H), 6.86-6.92 (m,2H), 7.43-7.49(m,2H)
	IR(CHCL ₁)3688,3594,3502,2982,1612,1517,1172,1080,1026,925cm ⁻¹
97	111NM18(CDC)3) & 0.02(8,611),0.12(8,611),0.90(8,911),0.93(8,911),4.54(8,211),4.76(8,211),6.84-6.89(m,211),7.16-7.22(m,211),7.37(8,
111-19	111),7.69(s,111)
	mp 173-176".
111.50	111NMR(CDCl3) & 3.21(s,3H),3.47(s,3H),3.89(s,3H),6.15(s,1H),6.42(s,1H),7.24·7.37(m,2H),7.61·7.66(m,2H)
	IR(KBr)3408,2934,1604,1480,1360,1146,1089,1004,865,709,547cm ⁻¹
	mp156-158°C
111-51	111-51 11NMR(CDCD3) & 3.21(s,3H),3.39(s,3H),3.90(s,3H),6.05(s,1H),7.36-7.44(m,4H)
	IR(KBr)3410,2938,1505,1457,1413,1337,1194,1143,1084,1014,876,826,542,519cm ⁻¹
	mp181.183℃
111-52	'!!NMR(CDC\;) \(\delta\) 3.19(s,3H),3.88(s,3H),4.21-4.24(m,2H),4.39-4.42(m,2H),6.49(s,1H),7.45(ABq,J=8.7Hz,4H)
	IR(KBr)3435,1598,1505,1474,1425,1366,1178,1147,1113cm ⁻¹
	mp155-157°C
	'HNMR(CDCI ₃) 6 ·0.11·0.02(m,2H),0.33·0.44(m,2H), 0.91(m,1H), 3.20(s,3H), 3.41(d,J=7.0Hz,2H), 3.50(s,3H),3.92(s,3H), 6.88
60.111	(s, 1H), 7.51(ABq,J=8.6Hz,4H)
	IR(KBr)3434, 1505, 1472, 1416, 1386, 1371, 1357, 1242, 1179, 1149, 1084cm ⁻¹
	mp105-107°C
111-54	1HNMR(CDCl ₃) § 3.20(8,3H),3.39(6,3H),3.89(8,3H),4.77(8,2H),6.40(8,1H),7.33-7.55(m,5H)
	IR(KBr)3411, 1592,1572,1507,1482,1467,1437,1360,1339,1232,1204,1175,1148,1125,1092cm ⁻¹

Table 8

	mp138-140°C
	"HNMR(CDCl ₃) & 1.14(t,J=7.011z,311), 3.59(q,J=7.011z,211), 3.88(s,311), 4.97(bs,111), 6.42(s,111), 6.86-6.94(m,211), 7.43-7.51
111.55	(m,211)
	1R(KBr)3384,3291,2978,1614,1593,1576,1519,1484,1469,1455,1436,1417,1366,1306,1285,1267,1203,1171,1127,1094,1029c
	ш
	mp162.164°C
111.56	111NMR(CDCh3) & 2.77(8,311),3.17(8,311),3.75(8,311),3.92(8,311),7.10(8,211),7.35-7.43(m,411)
	IR(CHCl.) 1594, 1561, 1507, 1478, 1464, 1374, 1331, 1178, 1149, 1109, 1080, 1000, 970, 894, 871, 844cm ⁻¹
	mp95-97°C
	'HNMR(CDCl ₃) & 2.35(s,3H),3.77(s,3H),6.84-6.87(m,2H),7.12(s,1H),7.13(s,1H),7.35-7.38(m,2H)
/9-111	IR(CHCl3)3596,2959,2939,2840,1611,1563,1517,1489,1464,1438,1384,1367,1329,1295,1258,1173,1102,1049,1035,1001,911,
	891,835cm ⁻¹
	mp173.175°C
111.58	1HNMR(CDCl ₁) δ 6.91-6.94(m,2H),7.31-7.34(m,2H),7.87(s,1H),8.09(s,1H),9.89(s,1H),10.28(s,1H)
	IR(CHCl ₃)3437,1685,1610,1516,1456,1394,1370,1270,1261,1238,1214,1173,1144,1053,1012,939,905,829,808,557,458cm ⁻¹
-	mp173.176°C
2	1HNMR(CDCl ₃) § 1.10(t,J=6.9Hz,3H), 1.48(t,J=6.9Hz,3H), 3.20(8,3H), 3.47(8,3H), 3.66(q,J=6.9Hz,2H), 4.11(q,J=6.9Hz,2H),
60-111	6.79 (s,1H), 7.32.7.39(m,2H),7.60.7.66(m,2H)
	IR(CHCl ₃)1502,1458,1372,1176,1148,1074,1023,967,870cm ⁻¹
111.60	111-60 HINMR(CDCls) & 2.17(8,3H),2.39(8,3H),3.19(8,3H),5.80(8,1H),6.71(8,1H),7.33(8,4H)

Table 9

50	45	40	35	30	25	20	15	10	5
111-61	mp 107-108% HINMR(CDCE) & 3.21(s,3H),3.79(s,3H),4.04(s,3H),7.39(d,J=8.9Hz,2H),7.57(d,J=8.9Hz,2H),7.68(s,1H),10.17(s,1H)	3.21(s,3H),3.7t 2,1 <u>3</u> 58,1224,114	9(s,311),4.04(s _. 18,1090,1026,9	,3H),7.39(d,J=£ 974,876cm ⁻¹	3.9Hz,2H),7.57	7(d,J=8.9Hz,2F),7.68(s,1H),	10.17(s,1H)	
111-62	mp 121-122 °C. HINMR(CDCL ₃) δ 3.45(8,3H), 3.47(8,3H), 3.93(8,3H), 4.68(8,2H), 4.77(8,2H), 7.22(8,1H), 7.49(d,J=8.1Hz,2H), 7.56(d, J=8.1Hz, 2H), 10.42 (8,1H) IR(KBr)1695,1476,1422,1232,1189,1130,1040,860cm ⁻¹	3.45(8,3H), 3.4 1,1422,1232,118	7(s,3H), 3.93(s	s,3H), 4.68(s,2F	4), 4.77(s,2H),	7.22(a,1H), 7.4	!9(d,J=8.1Hz,	2H), 7.56(d, J	=8.1Hz,
HI-63	mp113-115°C 'HNMR(CUCl.)	2.18(s,3H),3.22 ,1354,1230,114	(s,3H),3.89(s, 6,1097,976,86	3H),6.85(s,1H)	,7.11(8,1H),7.£	16(8,4H)			
111.64	HINMR(CDCh ₃) δ 5.65(s, 1H), 7.18(s, 1H), 7.30-7.35(m, 2H), 7.46-7.50(m, 3H) HINMR(CDCh ₃) δ :1.30(d, J=7.2Hz, 6H), 2.96(quintet, J=7.2Hz, 1H), 3.82(s, 3H), 3.91(s, 3H), 5.92(brs, 2H), 6.91(s, 1H), 7.30(d, J=8.1 Hz, 2H), 7.49(s, 1H), 7.49(d, J=8.1Hz, 2H)	5.65(s,111),7.18 1.30(d,J=7.2Hz 7.49(d,J=8.1Hz	(s,1H),7.30-7. s,6H),2.96(qui s,2H)	.35(m,211),7.46. ntet,J=7.2Hz,1	7.50(m,3H) H),3.82(s,3H),	3.91(s,3H),6.9	2(brs,2H),6.9	l (s, 1H), 7.30(d	,J=8.1
99-111	mp118-122℃ HINMR(CDCL),)	3.80(s,3H),3.91 (br),1606,1617,	(s,3H),5.88(s,3	2H),6.84-6.92(r 15,1397,1330,1	n,3H),7.39-7.4 265,1205,117.	7(m,3H) 1,1052cm ⁻¹			
111-67	mp227-230°C 'HNMR(CDCl ₃) & 0.25(s,6H),1.02(s,9H),2.33(s,3H),2.82(s,2H),6.88-6.93(m,2H),7.16(s,1H),7.21-7.25(m,3H),8.11(s,1H) IR(KBr)3600-2800(br),1608,1514,1393,1346,1267,1167cm ⁻¹	0.25(s,6H),1.02. (br),1608,1514,	(s,9H),2.33(s,:	3H),2.82(s,2H), 67,1167cm ⁻¹	6.88-6.93(m,2	H),7.16(8,1H),	7.21-7.25(m,3	H),8.11(s,1H)	·
111-68	mp134·137°C 'HNMR(CDCl ₃) & 3.00(s,6H),3.81(s,3H),3.91(s,3H),6.00(s,2H),6.77·6.82(m,2H),6.90(s,1H),7.41(s,1H),7.46-7.51(m,3H) IR(KBr)3600-2800(br),1601,1528,1494,1466,1439,1399,1362,1321,1198,1166,1118,1051cm ⁻¹	3.00(s,6H),3.81 (br),1601,1528,	(s,3H),3.91(s,; 1494,1466,143	3H),6.00(s,2H), 39,1399,1362,1	6.77-6.82(m,2 321,1198,1166	H),6.90(s,1H),3	7.41(s,1H),7.4	6-7.51(m,3H)	

Table 10

	mp144·148°C
69-111	1] NMR(CI)CL;) & 2.38(s,3H),2.82(s,3H),3.01(s,6H),7.79-7.83(m,2H),7.18(s,1H),7.27-7.31(m,2H),8.11(s,1H)
	1R(KBr)3600-2800(br), 1612, 1523, 1443, 1389, 1328, 1271, 1160cm ⁻¹
	mp122-126°C
£	111NMR(CDCL:) \$ 0.10(8,9H), 0.78(8,6H), 2.96(8,6H), 3.75(8,3H), 3.84(8,3H), 6.08(8,2H), 6.72-6.78(m,2H), 7.01(8,1H), 7.22-
2.11	7.29 (m, 211)
	1R(KBr)3600-2800(br), 1613, 1528, 1463, 1416, 1402, 1360, 1345, 1251, 1218, 1195, 1136, 1092, 1062,991cm ⁻¹
	111111111111111111111111111111111111
11:-111	,1H),7.08(s,1H),7.30-7.50(m,6H)
	lio
	111NMR((CDCE) & 2.51(8,611), 2.75(8,611), 5.15(8,211), 5.67(8,114), 6.94(8,114), 6.96(d,J=8.4Hz,114), 7.04(dd,J=2.1,8.4Hz,114),
27.111	7.18 (s, 111), 7.20(d,J=2.1Hz,1H),7.37·7.47(m,5H)
	IR(CHCl ₃)3032,3428,3000-2800(br),1730,1611,1625,1489,1455,1256,1171,1137,1100,1036cm ⁻¹
	HNMR(CDCE) & 2.21(8,3H), 2.37(8,3H), 5.15(8,2H), 5.69(br,1H), 6.73(dd, J=8.4,1.8Hz,1H), 6.89-6.99(m,2H), 7.07(8,1H), 7.26-7.4
87-111	6(m,611)
	1HNMR(CDCl ₃) δ 1.09(t,J=7.2Hz,3H), 1.22(t,J=7.5Hz,3H), 2.55(q,J=7.2Hz,2H), 2.72(q,J=7.5Hz,2H), 6.15(θ,2H), 5.70(θ,1H),
111.74	6.73 (dd, J=8.4,1.8Hz,1H), 6.89(d,J=1.8Hz,1H),6.95(d,J=8.4Hz,1H),7.04(s,1H),7.38-7.47(m,6H)
	1R(CHCl ₃)3542,2970,2933,1586,1508,1480,1384,1324,1290,1160,1127,1064,1011,930,898,879,857cm ⁻¹
	HNMR(CDCl ₃) 6 2.04(s,3H),3.70(s,3H),3.90(s,3H),5.19(s,2H),5.50(m,1H),6.73(dd,J=2.1Hz,1H),6.97-7.00(m,2H),7.29-7.48(m
07-111	(Hg'

Table 11

)	;	5)	ī	,	,	,	
111.76	111 MMR(C) 7.03 (m, 21 HRCHC)	DCI ₃) & 2.04(s, 3H), 3.90(s, 3H), 5.15(s, 2H), 5.49(s, 1H), 5.74(s, 1H), 6.71(dd, J=8.1, 2.1Hz, 1H), 6.85(d, J=2.1Hz, 1H), 6.99-1), 7.39-7.45(m, 5H) 1), 7.39-7.45(m, 5H) 35.29-2963.2940.1731.1587.1566.1510.1480.1455, 1412, 1382, 1323, 1290, 1248, 1128, 1099, 1009, 935, 879cm ⁻¹	1),5.15(s,211),5.49((a,111),5.74(a,111) 56,1412,1382,13),6.71(dd,J=8. 23,1290,1248,	1,2.1Hz,1H),(1128,1099,10	3.85(d,J=2.1Hz,1 09,935,879cm ⁻¹	Н),6.99-
111-77)Cl ₃) & 2.20(s,3H),2.37(s,3H),5.18(s,2H),6.90-7.10(m,4H),730-7.51(m,6H) 510,1482,1381,1298,1267,1233,1127,1008,952,875,812cm ¹),5.18(s,211),6.90-7 233,1127,1008, <u>95</u> 5	7.10(m,4H),730- 2,876,812cm ⁻¹	7.51(m,6H)			
111-78	111NMIR(C) J=8.311z, 11 IR(KBr)148)(3) & 1.25(d,J=6.9Hz,6H), 2.24(s,3H), 3.26(sept,J=6.9Hz,HI), 5.20 H), 7.06(dd,J=11.9,2.2Hz,1H),7.10(s,1H),7.17(s,1H),7.32-7.51(m,5H) 92,1420,1228,1203,1140,1012,989,841cm ⁻¹	2.24(s,3H), 3.26(s),7.10(s,1H),7.17(g),2,989,841cm ⁻¹	ept,J=6.9Hz,1H 8,1H),7.32-7.51(), 5.20(s,2H), (m,5H)	8:95(ddd,J=8	.3,2.2,1.2Hz,1H)	7.06 (t,
62-111	¹ HINMR(CDC! ₃) & 2.43(s,311),5.19(s,2H),7.06(t,J=8.9Hz,1H),7.18-7.48(m,10H) 1R(KBr)1491,1437,1214,1135,890,810,748cm ⁻¹	OCl ₃) & 2.43(s,311),5.19(s,2H),7.06(t,	,7.06(t,J=8.9Hz,1 48cm ⁻¹	H),7.18-7.48(m,	10H)			
111-80		921(s,3H),5.21(s,2H)r),1518,1418,1	1),6.90-6.99(m,3H)),7.31-7.50(m,7 140cm ⁻¹	(F			
18-111		.16(s,3H),2.37(s,3H) 3,1514,1478,1465,14	,2.42(s,3H),3.16(n 23,1366,1331,129	n,3H),5.21(s,2H),7.16-7.17(m, ⁵ 40,1126,1096,	3H),7.24-7.27 1045,1009,97	(m,1H),7.36-7.46 2,955,920,843cn	(m,6H)
111-82	HINMR(CDCl3) & 2.	C(11) & 2.19(s, 3H), 3.88(s, 3H), 5.20(s, 2H), 6.84(s, 1H), 6.95(m, 1H), 7.03-7.05(m, 3H), 7.35-7.49(m, 5H)	,5.20(s,2H),6.84(s	,1H),6.95(m,1H),7.03-7.05(m,	3H),7.35-7.49	(m,5H)	
111-83		ICI3) δ 2.19(s,3H), 3.88(s,3H), 3.91(s,3H), 5.21(s,3H), 6.76(dd,J=8.4,2.1Hz,1H), 6.82(d,J=2.1Hz,1H), 6.87(s,1H), 4Hz, 1H), 7.08(s,1H),7.32-7.50(m,5H) 902.2937,1613,1579,1499,1464,1456,1443,1421,1319,1249,1170,1140,1103,1029,1008,989,901,832cm ⁻¹	(), 3.91(s,3H), 6.2 50(m,5H) 164,1465,1443,142	11(6,3H), 6.76(d	1,J=8.4,2.1Hz,	1H), 6.82(d,J	=2.1Hz,1H), 6.E 9,901,832cm ⁻¹	7(s,1H),

Table 12

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	lio.	
111.84	$ 11.84 11NMR(CDC3) 3 1.44(d,J=6.911z,311),2.19(e,311),4.09(q,J=6.911z,2H),5.20(e,211),6.82(e,111),6.94\cdot7.08(m,3H),7.32\cdot7.49(m,6H) $	
	IR(CHCh)3597,2928,1731,1609,1523,1494,1476,1387,1298,1261,1173,1127,1048,834cm ⁻¹	
111-85	111-85 111NMR(CDCha) & 2.26(8,311), 2.52(8,311), 3.90(8,311), 4.59(brs,211), 6.20(8,211), 6.73-7.10(m,411), 7.27-7.52(m,611)	
111.86	HINMIR((31)(21,1) & 2.33(8.3H), 2.81(8.3H), 4.60(brs, 2H), 5.20(8, 2H), 6.92-7.18(m, 4H), 7.30-7.52(m, 6H)	

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Table 13

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 $d_{s,J} = 2.2 \text{ and } 8.2 \text{ Hz, 1 H}, 6.92 (d_{s,J} = 2.2 \text{ Hz, 1 H}), 6.94 (m, 2 \text{ H}), 6.96 (d_{s,J} = 8.2 \text{ Hz, 1 H}), 7.54 (m, 2 \text{ H}), 7.62 (brs, 1 \text{ H}), 7.78 (s, 1 \text{ H}), 8.64 (brs, 1 \text{ H})$ $HINMR(CD(C3)) \ \delta \ 2.68(8,3H), 3.13(8,3H), 3.55(8,3H), 3.80(8,3H), 5.19(8,2H), 6.86(8,1H), 7.16(4,J=8.7Hz,1H), 7.33\cdot7.49(m,7H), 7.16(1,M), 1.16(1,M), 1$ $\text{*HNMR(CDCI_3)} \ \delta \ 1.77(s,3H), 1.81(s,3H), 2.72(s,3H), 3.24(s,3H), 3.49(s,3H), 3.80(s,3H), 4.64(d,J=6.9Hz,2H), 5.50(m,1H), 6.86(s,3H), 3.80(s,3H), 4.64(d,J=6.9Hz,2H), 5.50(m,1H), 6.86(s,3H), 6$ $\text{HNMR}(\text{CIM}(3)) \ \delta \ \ 2.67(\text{s},3H), 3.13(\text{s},3H), 3.21(\text{s},3H), 3.56(\text{s},3H), 3.78(\text{s},3H), 5.19(\text{s},2H), 6.84(\text{s},1H), 7.16(\text{d},J=8.6\text{Hz},1H), 7.30-7. \\ \text{Additional properties of the properti$ 111NM18(acetone-da) & 1.77(brs, 311), 1.79(brs, 341), 3.37(s, 341), 3.73(s, 34), 4.63(brd, J=6.6Hz, 241), 5.52(m, 1H), 6.49(1H, s), 6.83(d IR(KBr)3433,2937,1609,1519,1474,1463,1364,1322,1295,1274,1235,1183,1167,1120,1095,1077,1016cm⁻¹ 1H), 7.10(d, J=8.7 Hz, 1H), 7.35(dd, J=2.1, 8.7 Hz, 1H), 7.39(d, J=2.1 Hz, 1H), 7.56-7.69(m, 2H), 7.82-7.87(m, 2H). $IR(CHCl_3)3030, 1608, 1518, 1480, 1369, 1322, 1269, 1230, 1179, 1131, 1120, 1097, 1081, 1016cm^{-1}, 1120, 1120, 1131, 1130, 1131, 1130, 1131, 1130, 1131, 1130, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131, 1131,$ IR(KBr)3538,3510,3460,3330,1605,1521,1490,1455,1247,1220,1120,1070,1010cm⁻¹ 55(m,1H),6.84(s,1H),7.09(d,J=8.4Hz,1H),7.30-7.42(m,4H),7.65-7.75(m,2H) IR(KBr)3393,2932,1611,1588,1522,1490,1117,1071,1001cl-3m⁻¹ IR(KBr)1519,1481,1364,1179,1153,1083,970,877,796cm-1 IR(KBr)1373,1361,1179,1149,1079,874,799cm 55-7.69(m,2H),7.82-7.87(m,2H) 50(m,9H),7.60-7.75(m,2H) m.p.155.5-156°C m.p.136-138°C m.p.155-157C

106

F:3

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Table 14

	m.p.92:94°C
1.7	HINMR(CDCL3) & 1.76(s, 3H), 1.82(s, 3H), 3.46(s, 3H), 3.77(s, 3H), 4.62(d, J=6.9Hz, 2H), 5.31(m, 1H), 5.71(s, 1H), 5.85(s, 1H), 6.47(s, J), 6.47(s, J)
	111),6.93(dd,J=1.8,8.711z, 111),6.97(d,J=8.711z, 111),7.05(d,J=1.81tz, 111),7.05-7.05(m,Zt1),7.85-7.91(m,Zt1). 1972 p. 2046 9626 1676 1587 1518 1498 1486 1464 1437 1406 1361 1324 1245 1216 1125 1073cm ⁻¹
	H(MB) 3400, 25.3, 1003, 1304, 1304, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404, 1404,
<u>.</u>	73(d,J=9.0Hz,2H)
	IR(KBe)3400,1721,1612,1509,1471,1362,1242,1153,1040,1018cm '
	111NMR(CDCl3) & 1.03(t, J=7.2Hz, 3H), 2.16(dq, J=7.2,6.0Hz, 2H), 3.46(8, 3H), 3.74(8, 3H), 4.68(d, J=5.4Hz, 2H), 5.70(m, 2H), 6.45(
6·I	s, 1H),6.91(d,J=8.7Hz,2H),6.96(brs,2H),7.07(brs,1H),7.53(d,J=8.7Hz,2H)
	IR(Nujol)3445,3369,1612,1578,1623,1489,1268,1243,1112,1102,1071,1011,998,944,824,805,781cm ¹
	m.p.174-175\?
	$HINMR(\mathrm{CDCl_3}) \ \delta \ \ 3.11 (\$,3H), 3.21 (\$,3H), 3.45 (\$,3H), 3.73 (\$,3H), 4.49 (brs,2H), 5.18 (\$,2H), 6.85 (\$,1H), 7.15 (d,J=8.4Hz,1H), 7.27 (d,J=8.4Hz,1H), $
01.1	dd,J=8.4Hz,J=2.1Hz,1H),7.35-7.49(m,8H),7.70(m,2H)
	1R(KBr) 1519, 1467, 1360, 1346, 1331, 1295, 1272, 1229, 1180, 1151, 1122, 1101, 1081, 1022, 980, 971, 954, 875, 849, 814, 798, 742, 525
	cm · 1
	1HNMR(CDCl ₃) 6 1.77(s, 3H), 1.82(s, 3H), 3.22(s, 6H), 3.45(s, 3H), 3.74(s, 3H), 4.49(brs, 2H), 4.64(d, J=7.2Hz, 2H), 5.45-5.55(m, 1H)
1111	,6.85(s,1H),7.08(d,J=8.7Hz,1H),7.26(dd,J=8.7and2.1Hz,1H),7.33(d,J=2.1Hz,1H),7.36·7.41(m,2H),7.65·7.76(m,2H)
	IR(KBr)3553,3434,1516,1472,1365,1176,1150,973,871cm ⁻¹
	1HNMR(DMSO-d6) & 1.72(8,3H),1.77(8,3H),3.35(8,3H),3.65(8,3H),4.20(brs,2H),4.47(brt,J=4.4Hz,1H),4.55(brd,J=6.6Hz,2H),
1.12	5.40-5.57(m,1H),6.64(dd,J=8.2,2.0Hz,1H),6.70(d,J=2.0Hz,1H),6.75-7.00(m,4H),7.40-7.55(m,2H)
	IR(KBr)3435,1518,1475,1459,1261,1223,988cm ⁻¹

Table 15

55

HNMR(CDC)	a) 8 2.71(s,3H),2	.84(s,3H),3.20(s	,3H),3.42(s,3H	I),3.76(s,3H),	,5.13(s,2H),5.6	7(s, 1H),6.90($ \text{HNMR}(\text{CDC}_{13}) \ \delta \ 2.71(\text{s}, 3\text{H}), 2.84(\text{s}, 3\text{H}), 3.20(\text{s}, 3\text{H}), 3.42(\text{s}, 3\text{H}), 5.76(\text{s}, 3\text{H}), 5.13(\text{s}, 2\text{H}), 5.67(\text{s}, 1\text{H}), 6.90(\text{s}, 1\text{H}), 6.89\cdot6.96(\text{m}, 2\text{H}), 6.89\cdot6.96(\text{m}, $	2H),
.00(m, J=1.81	7.00(m,J=1.811z,111),7.32·7.50(m,7H),7.70(d,J=9.011z,211)	(m,7H),7.70(d,J=	-9.0Hz,2H)					
m.p.140-141°C) 8 2.71(8,3H),	2.83(s,311),3.15(8,3H),3.21(8,3	II),3.42(a,31I)),3.77(8,311),5.	16(8,211),6.90	m.p.140-141 °C. (8,3H),2.83(8,3H),3.15(8,3H),3.21(8,3H),3.42(8,3H),3.77(8,3H),5.16(8,2H),6.90(8,1H),7.09(d,J=8.9Hz,	9Hz,
H),7.30-7.50(R(KBr)1642.)	211),7.30-7.50(m,9H),7.70(d,J=8.9Hz,2H) HRIKHY)1642,1516,1467,1362,1180,1151,1118,1050,867,803,708cm ⁻¹	8.9Hz,2H) 1180,1151,1118,	1050,867,803,	708cm ⁻¹				1
m.p. 161-162U								
HNMR(CDC)	[1] δ 1.76(s,3H),	1.81(s,3H),2.72(s	s,3H),2.85(s,3l	H),3.21(s,3H),3.23(a,3H),3.	42(s,311),3.77	$1110MR(CDCH_3) \delta - 1.76(s, 3H), 1.81(s, 3H), 2.72(s, 3H), 2.85(s, 3H), 3.21(s, 3H), 3.23(s, 3H), 3.42(s, 3H), 3.77(s, 3H), 4.61(d, J=6.6Hz, J=6.6Hz)$	6Hz,
H),5.49(t,J=6	2H, $5.49(t, J=6.6Hz, 1H), 6.90(S, 1H), 7.02(d, J=8.1Hz, 1H), 7.31-7.37(m, 2H), 7.38(d, J=8.9Hz, 2H), 7.70(d, J=8.9Hz, 2H)$,1H),7.02(d,J=8.	.1Hz,1H),7.31	.7.37(m,2H),'	7.38(d,J=8.9Hz	z,2H),7.70(d,J	=8.9Hz,2H)	
R(KBr)1643,	IR(KBr)1643,1516,1467,1362,1277,1236,1180,1150,974,882,868,847,802,710 cm ⁻¹	1277,1236,1180,	1150,974,882,	868,847,802	,710 cm ⁻¹			
m.p.206-207°C							,	1
HNMR(CDCI	13) 6 1.71(8,311),1	.76(s,3H),2.62(s	,3H),2.69(s,3F	1),3.27(s,3H)	,3.71(s,3H),4.5	3(d,J=6.8Hz,	!HNMR(CDCl3) & 1.71(8,311), 1.76(8,3H), 2.62(8,3H), 2.69(8,3H), 3.27(8,3H), 3.71(8,3H), 4.53(d,J=6.8Hz,2H), 5.47(t,J=6.6Hz,1H	z, 1H
6.61(dd,J=8.	3and2.1Hz,1H),6	3.71(d,J=2.1Hz,1	H),6.86(d,J=8	3.7Hz,2H),6.8	37(d,J=8.3Hz,1	H),6.95(8,1H),6.61(dd,J=8.3and2.1Hz,1H),6.71(d,J=2.1Hz,1H),6.86(d,J=8.7Hz,2H),6.87(d,J=8.3Hz,1H),6.95(e,1H),7.47(d,J=8.7Hz,2H),8	8,(H)
83(brs, 1H), 9.59(brs, 1H)	59(brs, 1H)							
R(KBr)3427,	IR(KBr)3427,3020,1608,1517,1467,1379,1233,1053,1005,839,799,759,543cm ⁻¹	1467,1379,1233,	,1053,1005,83	9,799,759,54	3cm ⁻¹			
m.p.171-172°C								•
HNMR(DMS)	O-d ₆) δ 1.74(d,J	=0.9Hz,3H),1.7	7(s,3H),2.97(s,	3H),3.46(s,3)	H),3.51(8,3H),	3.77(s,3H),4.6	1 HNMR(DMSO- d_0) δ 1.74(d,J=0.9Hz,3H),1.77(8,3H),2.97(8,3H),3.46(8,3H),3.51(8,3H),3.77(8,3H),4.65(d,J=6.6Hz,2H),5.48(5.48(
n, 1H), 7.06-7.5	m,1H),7.06-7.27(m,4H),7.48&7.74(ABq,J=9.0Hz,4H)	7.74(ABq,J=9.0F	1z,4H)					
R(KBr) 1523,	IR(KBr)1523,1483,1394,1366,1271,1175,1161,1087,1071,872,861,847,796cm ⁻¹	1271,1175,1151	1087,1071,87	2,861,847,79	6cm ⁻¹			
HINMR(CDC)	l ₃) δ 1.76(s,3H),1	.80(s,3H),3.44(s	,3H),3.76(a,3F	I),4.63(d,J=6	.6Hz,2H),4.99	(s, 1H), 5.48-5.	$1110MR(CDCI_3) \delta 1.76(s,3H), 1.80(s,3H), 3.44(s,3H), 3.76(s,3H), 4.63(d,J=6.6Hz,2H), 4.99(s,1H), 5.48-5.62(m,1H), 6.00(s,1H), 6.00(s,1H)$	H),6.
15(s, 1H), 6.88-	45(6,1H),6.88-6.97(m,2H),7.04(dd,J=9.0,9.0Hz,1H),7.15-7.29(m,2H),7.45-7.60(m,2H)	zH0.0,0.e=L,bb)	,1H),7.15-7.29	(m,2H),7.45·	7.60(m,2H)			
1"ma0701 9111 9967 7961 9410 941 9641 9641 9665 8755								

Table 16

-	111111111111111111111111111111111111
1-13	.411z,111),7.05(d,J=2.011z,111),7.35-7.51(m,7H),7.60(d,J=8.6Hz,2H)
	UINMR(CDCI3) & 2.69(s,3H),3.14(s,3H),3.21(s,3H),3.53(s,3H),3.71(s,3H),5.20(s,2H),7.18(d,J=8.7Hz,1H),7.34·7.50(m,9H),7.
1-20	59(d,J=8.7Hz,2H)
	m.p.94-95 %
	$^{4}\text{HINMR}(\text{CDCI}_{3}) \delta = 2.73 (\text{s}, 3\text{H}), 3.21 (\text{s}, 3\text{H}), 3.24 (\text{s}, 3\text{H}), 3.53 (\text{s}, 3\text{H}), 3.71 (\text{s}, 3\text{H}), 4.65 (\text{d}, J=6.9\text{Hz}, 2\text{H}), 5.50 (\text{t}, J=6.9\text{Hz}, 1\text{H}), 7.12 (\text{d}, J=6.9\text{Hz}, 2\text{H}), 6.50 (\text{t}, J=6.9\text{Hz}, 1\text{H}), 7.12 (\text{d}, J=6.9\text{Hz}, 2\text{Hz}, 2\text{H}), 6.50 (\text{t}, J=6.9\text{Hz}, 1\text{H}), 7.12 (\text{d}, J=6.9\text{Hz}, 2\text{Hz}, 2\text{Hz}), 6.50 (\text{t}, J=6.9\text{Hz}, 2\text{Hz}), 6.50 (\text{t}, J=6.9\text{Hz}), 6$
17-1	8.6Hz, HI), 7.36(dd, J=8.6and2.1Hz, HI), 7.41(d, J=2.1Hz, 2H), 7.41(d, J=8.8Hz, 2H), 7.59(d, J=8.8Hz, 2H)
	IR(KBr)1516,1367,1180,1152,1039,975,869,799cm ¹
	m.p.148-150°C
-	1HNMR(CDCl ₃) δ 3.42(s,3H),3.65(s,3H),4.63(d,J=6.9Hz,2H),4.98(brs,1H),5.53(t,J=6.9Hz,1H),6.92-6.96(m,4H),7.07(s,1H),7
1.22	.43(d,J=8.6Hz,2H)
	IR(KBr)3398,1612,1587,1523,1462,1410,1261,1211,1099,1036,984,962,919,838,815cm ⁻¹
	1 HNMR(CDCl ₃) δ 2.28(t,J=6.3Hz,1H),2.60(s,3H),3.21(s,3H),3.55(s,3H),3.77(s,3H),4.78(d,J=6.3Hz,2H),5.18(s,2H),6.84(e,1H)
1.23),7.06(d,J=9.011z,1H),7.29-7.48(m,9H),7.69(d,J=8.7Hz,2H)
	14NMR(CDCl3) & 1.76(6,3H), 1.81(8,3H), 2.26(8,3H), 2.50(8,3H), 3.21(8,3H), 3.56(8,3H), 3.77(8,3H), 4.67(d, J=6.2Hz, 2H), 5.51(t, J
1.24	=6.2Hz,1H),6.83(s,1H),6.92(d,J=9.0Hz,1H),7.17-7.29(m,2H),7.36(d,J=8.7Hz,2H),7.70(d,J=8.7Hz,2H)
	IR(KBr)3434,1608,1512,1479,1364,1234,1176,1150,1078,1017cm ⁻¹
	14NMR(CDCl3) & 1.75(8,3H), 1.80(8,3H), 2.27(8,3H), 3.46(8,3H), 3.74(8,3H), 4.57(d, J=6.2Hz, 2H), 4.95(8, 1H), 5.53(t, J=6.2Hz, 1H)
1.25),5.86(s,1H),6.45(s,1H),6.91(d,J=8.7Hz,2H),6.92(d,J=9.0Hz,1H),7.24(d,J=9.0Hz,1H),7.26(e,1H),7.53(d,J=8.7Hz,2H)
	IR(KBr)3399,1612,1566,1581,1520,1486,1237,1115,1078,1001cm-1

Table 17

1.26	m.p.246-247°C HNMR(DMSO·d ₆) & 5.16(s,3H),6.84·6.87(m,2H),7.05(s,2H),7.14(s,1H),7.32-7.43(m,3H),7.49-7.64(m,8H) IR(KBr)3600-3100(br),1594,1453,1387,1296,1253,1010cm ⁻¹
1.27	4HNMR(DMSO-da) & 3.38(s,3H),3.43(s,3H),5.28(s,2H),7.36-7.54(m,8H),7.69-7.86(m,8H) IR(KBr)1488,1354,1286,1178,1151,1116cm '
1.28	m.p.162-163°C HINMR(CDCh) & 1.77(s,3H),1.82(s,3H),3.19(s,3H),3.23(s,3H),4.64(d,J=6.6Hz,2H),5.25-5.48(m,1H),7.09(d,J=9.0Hz,1H),7.3 6-7.40(m,2H),7.52(dd,J=2.4,9.0Hz,1H),7.59(d,J=2.4Hz,1H),7.62(s,4H),7.63-7.69(m,2H) IR(KBr)1489,1363,1290,1177,1154,1115,971,860,809cm ⁻¹
1.29	m.p.195°C 1HNMR(DMSO·d ₆)
1-30	m.p.145-148°C !!INMR((CDCL3) & 1.60-2.20(m,6H),2.72(a,3H),3.21(a,3H),3.24(a,3H),3.56(a,3H),3.78(a,3H),4.92(m,1H),5.88(m,1H),6.02(m,1 H),6.84(s,1H),7.12(d,J=8.6Hz,1H),7.34-7.40(m,4H),7.69(m,2H) IR(KBr)1517,1481,1390,1362,1270,1244,1180,1151,1077,1012,973,960,873,817,799,521cm ⁻¹
1.31	m.p.108-110°C !HNMR(CDCl ₃)

Table 18

	m.p.188-190℃
	111NMR(CDCLs) & 2.69(8,311),3.21(8,311),3.26(8,311),3.56(8,311),3.78(8,311),4.84(m,211),6.42(dt,J=15.6Hz,J=5.7Hz,111),6.79(d
1.32	,J=15.6Hz,1H),6.84(s,1H),7.15(d,J=8.4Hz,1H),7.28-7.43(m,9H),7.68(m,2H)
	1R(KBr)1519,1479,1447,1391,1360,1301,1273,1241,1228,1201,1175,1152,1120,1079,1014,974,959,947,868,819,795,777,74
	3,521cm ¹
	m.p.157-159°C
-	111NMR(CDCL ₃) & 3.46(8,311),3.75(8,311),4.81(m,211),4.93(b8,111),5.70(8,111),5.91(8,111),6.45(8,111),6.46(dt,J=15.911z,J=6.0H
	z, 1H),6.76(d,J=15.9Hz,111),6.90·7.09(m,5H),7.26·7.46(m,5H),7.54(m,2H)
	IR(KBr)3466, 1611, 1522, 1489, 1461, 284, 1248, 1192, 1165, 1114, 1073cm - 1
	m.p.127·129℃
	1HNMR(CDCl ₃) 6 1.03and 1.04(botht, bothJ=8.0Hz, total3H), 2.07-2.19(m,2H), 2.71and 2.72(boths, total3H), 3.21(s,3H), 3.24(s,
1:34	3H), 3.56(8,3H), 3.78(8,3H), 4.60and 4.71(bothm, total 2H), 5.66-5.75and 5.90-5.99(bothm, total 2H), 6.84(8, 1H), 7.09(d, J=8.4Hz, 1
	H),7.33.7.41(m,4H),7.68(m,2H)
	IR(KBr)1519,1482,1390,1362,1232,1180,1150,1077,974,873,815,799,522cm ⁻¹
	m.p.166-168°C
9	111NMR(COCA) 3 1.04and 1.05(botht, bothJ=7.511z, total3H), 2.09-2.19(m,2H), 3.46(s,3H), 3.74(s,3H), 4.58and 4.68(bothm, tota
G:-1	1211),5.01(hs,111),5.69-5.78and5.87-5.95(bothm,total411),6.45(s,1H),6.90-7.06(m,5H),7.53(m,2H)
	IR(KBr)3531,3489,3306,1523,1492,1459,1408,1314,1287,1270,1255,1234,1224,1118,1072,1018,1005,822cm ⁻¹
	m.p.148-150°C
	1HNMR(CDCl ₃) δ 1.62(s,3H), 1.69(s,3H), 1.76(s,3H), 2.08-2.20(m,4H), 2.71(s,3H), 3.21(s,3H), 3.24(s,3H), 3.56(s,3H), 3.78(s,3H),
J:36	4.66(d,J=6.3Hz,2H),5.09(m,1H),5.50(t,J=6.3Hz,1H),6.84(s,1H),7.10(d,J=8.4Hz,1H),7.33-7.41(m,4H),7.68(m,2H)
	IR(KBr)1519,1480,1464,1449,1389,1366,1291,1271,1233,1200,1176,1150,1118,1079,1012,973,946,876,841,816,801,523,51
	0cm ⁻¹

Table 21

55

50	45	40	. 35	30	25	20	15	10	5
1.50	111NMR(acetone-dc) & 1.75(m,3H),3.39(s,3H),3.72(s,3H),4.72(m,2H),5.73-5.75(m,2H),6.48(s,1H),6.83(dd,J=2.0and7.8Hz,1H),6.92-6.95(m,3H),6.97(d,J=7.8Hz,1H),7.52(m,2H)	de) Ø 1.75(m,3}	(1),3.39(s,3H),3.2(m,	3.72(s,3H),4.72(2H)	(m,2H),5.73-5.	75(m,2H),6.48	(s, 1H1), 6.83(de	d,J=2.0and7.8H	z,1H
1.51	¹ HINMR(acetone-d ₆) δ 1.77(s,3H), 1.79(s,3H), 3.41(s,3H), 3.72(s,3H), 4.66(m,2H), 5.53(m,1H), 6.49(s,1H), 6.85(m,2H), 7.04(d,J=8.1Hz,1H), 7.19(d,J=2.1and8.1Hz,1H), 7.19(d,J=2.1Hz,1H), 7.25(m,2H)	etone-da)	I), I.79(s, 3H), 3 Iz, IH), 7.19(d,	3.41(s,311),3.72(J=2.1Hz,1H),7.	s,3H),4.66(m, 25(m,2H)	2H),5.53(m,1H),6.49(s,1H),6	3.85(m,2H),7.04	=f,b
1.52		2.58(t,J=2.211 111),7.35-7.46(n	z, 1H), 2.73(s, 3 n,4H), 7.64-7.7	(H), 3.22(s, 3H), 3.4(m, 2H)	3.26(s,3H),3.50	3(s,3H),3.78(s,3	311),4.83(d,J=	DCh) & 2.68(f,J=2.2112,111),2.73(s,311),3.22(s,311),3.26(s,311),3.56(s,311),3.78(s,311),4.83(d,J=2.2Hz,211),6.86(s,1H 8.411z,111),7.35-7.46(m,4H),7.64-7.74(m,2H)	8,1H
1-53	111NMR(CDCl _{ii}) & 0.9Hz, 1H),6.45(9,	DCh) \(\delta\) 3.45(8,311),3.76(8,311),4.36(4,J=1.5112,111),4.55(8,211),4.76(dd,J=1.8an 6.45(8,1H),6.90-6.96(m,2H),6.96-7.05(m,2H),7.10-7.12(m,1H),7.50-7.58(m,2H	76(s,311),4.36(n,2H),6.96-7.0	d,J=1.511z,1H), 5(m,2H),7.10-7	4.55(8,211),4.7	G(dd,J=1.8and 0-7.58(m,2H	0.6Hz, 111), 5.(DCh) \(\delta\) 3.45(8,311),3.76(8,311),4.36(d,J=1.511z,111),4.55(8,211),4.76(dd,J=1.8and0.6Hz,111),5.02(brs,111),5.97(d,J=6.45(8,111),6.90-6.96(m,241),6.96.705(m,241),7.10-7.12(m,111),7.50-7.58(m,24)	±0,b
1.54		JCl ₃) δ 1.76(s,3H), 1.82(s,3H),2.61(s,3H),3.53(s,3H),3.77(s,3H),4.6 6.84(s,1H),6.88-7.00(m,4H),7.02(d,J=1.8Hz,1H),7.50-7.57(m,2H)	12(s,3H),2.61(s m,4H),7.02(d,	,3H),3.53(s,3H) J=1.8Hz,1H),7.),3.77(s,3H),4. 50-7.57(m,2H	61(d,J=6.9Hz,;	2H),5.17(brs,	UCl ₃) δ 1.76(s,3H), 1.82(s,3H), 2.61(s,3H), 3.53(s,3H), 3.77(s,3H), 4.61(d,J=6.9Hz,2H), 5.17(brs,1H), 5.45-5.50(m,1H), 6.84(s,1H), 6.88-7.00(m,4H), 7.02(d,J=1.8Hz,1H), 7.50-7.57(m,2H)	HI.
1-55		OCl ₃) & 0.99(d,J=6.5Hz,6H),1.74(q,J=6.5Hz,2H),1.85(m,1H),3.46(s,3H 5.90(s,1H),6.45(s,1H),6.92(m,2H),6.95(m,2H),7.06(m,1H),7.54(m,2H)	lz,6H), 1.74(q,,	J=6.5Hz,2H),1.8	85(m,1H),3.46 (m,1H),7.54(n	(s,3H),3.75(s,3	H),4.12(t,J=6	UCl ₃) δ 0.99(d,J=6.5Hz,6H),1.74(q,J=6.5Hz,2H),1.85(m,1H),3.46(s,3H),3.75(s,3H),4.12(t,J=6.5Hz,2H),4.97(s,1H),5.90(s,1H),6.45(s,1H),6.95(m,2H),7.06(m,1H),7.54(m,2H)	HI.
1.56	¹ HNMR(CDCl ₃) δ 1.34(s,3H),1.35(s,3H),3.15(dd,J=3.6and6.6Hz,1H),3.39(s,3H),3.72(s,3H),4.10(dd,J=6.6and11.1Hz,1H),4.34(dd,J=3.6and11.1Hz,1H),6.93(dd,J=8.7Hz,2H),6.94(d,J=1.8Hz,1H),7.00(d,J=8.1Hz,1H),7.52(d,J=8.7Hz,2H)	OCl ₃) & 1.34(s,3H),1.3 hand11.1Hz,1H),6.49(J=8.7Hz,2H)	35(s,3H),3.15(dd,J=3.6and6.6 ,J=1.8and8.1H:	3Hz,1H),3.39(s z,1H),6.93(d,J	,3H),3.72(8,3H =8.7Hz,2H),6.9),4.10(dd,J=6)4(d,J=1.8Hz,	DCl ₃) δ 1.34(s,3H),1.35(s,3H),3.15(dd,J=3.6and6.6Hz,1H),3.39(s,3H),3.72(s,3H),4.10(dd,J=6.6and11.1Hz,1H),4.6and11.1Hz,1H),4. 10(dd,J=6.6and11.1Hz,1H),4.10(dd,J=6.6and11.1Hz,1H),4.10(dd,J=8.1Hz,1H),6.94(d,J=1.8Hz,1H),7.00(d,J=8.1Hz,1Hz,2H)	1),4.
1,57	¹ HNMR(CDCl ₃) δ 2.68(s,3H),3.13(s,3H),3.53(s,3H),3.78(s 7.64(m,2H) 1R(KBr)1607,1520,1481,1373,1231,1176,1119,1078cm ⁻¹	2.68(e,3H),3.1,	3(s,3H),3.53(s	,3H),3.78(s,3H)),6.19(s,2H),6.	83(s,1H),7.10-7	7.19(m,3H),7.	OCls) & 2.68(s, 3H), 3.13(s, 3H), 3.53(s, 3H), 3.78(s, 3H), 5.19(s, 2H), 6.83(s, 1H), 7.10-7.19(m, 3H), 7.31-7.50(m, 7H), 7.57-	.57.
1.58	¹ HNMR(CDCl ₃) δ 1.76(a,3H), 1.82(a,3H), 2.72(a,3H), 3.23(a,3H), 3.53(a,3H), 3.78(a,3H), 3.78(a,3H), 4.64(d,J=6.6Hz,2H), 6.84(t,J=6.6Hz,1H), 5.83(a,1H), 7.06-7.20(m,3H), 7.31-7.40(m,2H), 7.56-7.65(m,2H) IR(KBr)1603, 1521, 1483, 1376, 1366, 1176, 1085cm ⁻¹)Cl ₃) & 1.76(e,3H),1.82(e,3H),2.72(e,3H),3.23(e,3H),3.53(e,3H), 1,5.83(e,1H),7.06-7.20(m,3H),7.31-7.40(m,2H),7.56-7.65(m,2H))3,1521,1483,1376,1366,1176,1085cm ⁻¹	2(s,3H),2.72(s,m,3H),7.31-7. 66,1176,1085c	,3H),3,23(s,3H) 40(m,2H),7,56- m ⁻¹	7.65(m,2H)	78(s,3H),3.78(s	,3H),4.64(d,J	=6.6Hz,2H),6.8	I(t,J

Table 22

	1HNMR(CDCh3) & 1.76(8,3H),1.82(8,3H),3.45(8,3H),3.75(8,3H),4.62(d,J=6.9Hz,2H),5.52(t,J=6.9Hz,1H),5.71(brs,1H),5.89(8,
1.59	1H),6.44(s,1H),6.90-719(m,5H),7.56-7.67(m,2H)
	HK(KBr)3545,3385,1605,1586,1561,1520,1384,1311,1284,1225,1121,1096cm-1
	111 HINMIR (CIDCI3) & 3.49(8,3H),3.74(8,3H),5.15(8,2H),5.68(9,1H),5.91(8,1H),6.02(8,2H),6.43(8,1H),6.88-7.19(m,6H),7.31-7.48(
1.60	m,5H)
	HR(CHCHCh3)3535,1615,1588,1519,1500,1482,1410,1290,1241,1204,1092,1041cm 1
	HINMR(CDCB) & 1.76(8,3H), 1.81(8,3H), 2.73(8,3H), 3.23(8,3H), 3.57(8,3H), 3.77(8,3H), 4.64(d, J=6.6Hz, 1H), 5.50(t, J=6.6Hz, 1H
-), 6.03(8,211), 6.83(8,111), 6.91(d,J=8.111z,111), 7.08(d,J=8.111z,111), 7.09(d,J=8.111z,111), 7.14(8,111), 7.34(d,J=8.111z,111), 7.39(8,111), 7.14(8,111), 7.34(d,J=8.111z,111), 7.39(8,111), 7.39(8,111), 7.39(1,J=8.111z,111), 7.39(1,J=8.11z,111), 7.39(1,J=8.11z,111), 7.39(1,J=8.111z,111), 7.39(1,J=8.111z,111), 7.39(1,J=8.111z,111), 7.39(1,J=8.111z,111), 7.39(1,J=8.111z,111), 7.39(1,J=8.111z,111), 7.39(1,J=8.11z,111), 7.3
<u> </u>	H)
	IR(CHCl ₃)1607,1518,1477,1453,1369,1240,1178,1081cm ⁻¹
	11NMR(CDCl ₃) & 1.76(s,3H), 1.82(s,3H), 3.49(s,3H), 3.74(s,3H), 4.61(d,J=6.9Hz,2H), 5.53(t,J=6.9Hz,1H), 5.68(s,1H), 6.02(s,2H)
1.62),6.43(s,1H),6.88-6.96(m,3H),7.03-7.18(m,3H)
	IR(KBr)3494,1610,1583,1561,1519,1480,1460,1409,1286,1243,1191,1127,1089,1036cm ⁻¹
	m.p.201-202°C
-	IIINMII(CDCI;) & 3.78(s,6H),5.16(s,4H),5.69(s,2H),6.93(s,2H),6.99(d,J=8.4Hz,2H),7.08(dd,J=2.1and8.4Hz,2H),7.22(d,J=2.
F0-1	1Hz,2H),7.37-7.47(m,10H), .
	IR(KBr)3600-3100(br), 1584, 1523, 1454, 1272, 1245, 1210, 1130cm ⁻¹
	m.p.173-175°C
1.64	1HNMR(CDCI;) 6 3.12(s,6H),3.80(s,6H),5.18(s,4H),6.92(s,2H),7.12(d,J=8.7Hz,2H),7.36-7.50(m,12H),7.60(d,J=2.1Hz,2H)
	IR(KBr)1523,1492,1356,1290,1263,1210,1182,1114cm ⁻¹

Table 25

-	$ \begin{array}{llllllllllllllllllllllllllllllllllll$
<i>></i>	s,111)
	IR(KBr)3600-3100(br), 1610, 1594, 1532, 1496, 1444, 1409, 1305, 1245, 1209cm ⁻¹
	m.p.134-135°C
-	111111111111111111111111111111111111
¢/-	22(d,J=2.111z,111),7.36-7.47(m,611),7.52-7.57(m,211)
	HR(KBr)3600-3100(br),1524,1494,1462,1381,1273,1248,1213cm
	$^{1}\text{HNMR}(\text{CDCI}_{3}) \ \delta \ \ 3.12 (s, 3\text{H}), 3.79 (s, 3\text{H}), 3.80 (s, 3\text{H}), 5.18 (s, 2\text{H}), 6.92 (s, 1\text{H}), 6.94 (s, 1\text{H}), 7.09-7.15 (m, 3\text{H}), 7.38-7.56 (m, 8\text{H}), 7.60 (m, 2\text{H}), 7.60 (m, 2$
1.79	d,J=2.1Hz,1H)
	IR(KBr) 1522, 1493, 1467, 1387, 1365, 1279, 1213, 1112cm
	m.p.110.111°C
6	$^{\rm IHNMR(CDCl_1)} \delta \ 1.77 (s, 3H), 1.81 (s, 3H), 3.22 (s, 3H), 3.78 (s, 3H), 3.80 (s, 3H), 4.63 (d, J=6.9 Hz, 2H), 5.50 \cdot 5.57 (m, 1H), 6.91 (s, 1H), 6.$
00.1	94(s,1H),7.04-7.14(m,3H),7.47-7.58(m,4H)
	IR(KBr)1552,1493,1364,1212,1110,970cm ¹
	$^{1}\text{HNMR}(\text{CDCL}_{3}) \delta - 1.77(s, 3\text{H}), 1.82(s, 3\text{H}), 3.78(s, 3\text{H}), 3.79(s, 3\text{H}), 4.62(d, J=6.9\text{Hz}, 2\text{H}), 5.50.5.56(m, 1\text{H}), 5.72(s, 1\text{H}), 6.91.6.96(m, 1\text{H}), 1.82(s, 1$
1.81	3H), 7.06-7.14(m, 3H), 7.20(d, J=1.8Hz, 1H), 7.52-7.57(m, 2H)
	IR(KBr)3536,1520,1493,1386,1271,1241,1210cm ⁻¹
	"HINMR(CDCL;) & 1.29(t,J=7.2Hz,3H),1.76(s,3H),1.79(s,3H),3.78(s,6H),3.78(q,2H),4.64(d,J=6.3Hz,2H),4.72(s,2H),5.53-5.78
1.82	(m, 111),6.61(s, 111),6.94(s, 111),6.98(d,J=8.711z, 111),7.09-7.20(m,411),7.52-7.57(m,2H)
	IR(KBr)1758,1524,1496,1461,1387,1263,1209,1147cm - 1

Table 26

	HINMR(CDCL3) & 2.76(s, 3H), 3.21(s, 3H), 3.55(s, 3H), 3.77(s, 3H), 5.26(s, 2H), 6.85(s, 1H), 7.17(d, J=8.7Hz, 1H), 7.31-7.50(m, 8H), 7.
1.83	60-7.71(m,311),7.92(s,111)
	IR(KBr) 1684, 1606, 1512, 1478, 1177, 1150, 1080, 1016cm
	$HINMR(CDC(3) \delta - 1.26(t, J=7.2Hz, 2H), 3.08(s, 3H), 3.22(s, 3H), 3.31(s, 3H), 3.74(s, 3H), 4.16(q, J=7.2Hz, 2H), 5.17(s, 2H), 6.44(d, J=1.11)$
1.84	16.511z,111),6.89(s,1H1),7.13(s,2H),7.27(d,J=8.4Hz,1H),7.35-7.50(m,8H),7.69(d,J=8.4Hz,2H)
	IR(KBr) 1708, 1633, 1513, 1465, 1367, 1271, 1230, 1176, 1151, 1120, 1017cm
	111111111111111111111111111111111111
1-85	16.511z,111),6.69(dd,J=8.4nnd2.411z,111),6.88(8,211),7.00(d,J=8.411z,1H),7.33·7.50(m,8H),7.70(d,J=8.4Hz,2H)
	IR(KBr)3398,1675,1627,1581,1512,1465,1370,1284,1256,1221,1148,1074,1017cm-1
	1HNMR(CDCl ₃) & 2.53(8,3H),3.21(8,3H),3.56(8,3H),3.77(8,3H),4.58(8,2H),5.24(8,2H),6.83(8,1H),6.96(d,J=8.4Hz,1H),7.28-7.
1.86	57(m,9H),7.69(d,J=8.4Hz,2H)
	IR(KBr)1605,1512,1479,1366,1233,1175,1149,1080,1015cm ⁻¹
	1HNMR(CDCl ₃) & 1.76(s,3H),1.81(s,3H),3.27(s,3H),3.78(s,3H),3.79(s,3H),4.63(d,J=6.6Hz,2H),5.40-5.60(m,1H),5.71(s,1H),5.
1.87	07(s,111),6.91-6.95(m,311),7.05-7.20(m,311),7.43-7.51(m,2H)
	IR(KBr)3600-3200(br), 1617, 1525, 1494, 1464, 1361, 1292, 1208, 1178, 1101, 1033cm-1
	1HNMR(CDCl ₃) δ 2.57(s, 3H), 3.20(s, 3H), 3.56(s, 3H), 3.79(s, 3H), 5.18(s, 2H), 6.84(s, 1H), 7.06-7.15(m, 1H), 7.20-7.40(m, 9H), 7.40-7.40(m, 9H), 7.40(m, 9H)
- I-88	7.57(m.2H),7.60-7.75(m,3H),8.20-8.25(m,2H)
	111NMR(CDCl3) 6 3.44(8,3H),3.75(8,3H),5.01(8,1H),5.18(8,2H),6.01(8,1H),6.45(8,1H),6.88-6.97(m,2H),7.07(dd,J=8.4and8.4
1.89	Hz,1H),7.15-7.21(m,1H),7.27(dd,J=12.3and2.1Hz,1H),7.29-7.43(m,3H),7.46-7.56(m,4H)

Table 27

55

50	45	40	35	30	25	20	15	10	5
06-1	HNMR(CDCl ₃) δ 1.68(s,3H), 1.75(d,J=0.9Hz,3H), 2.55(dt,J=6.9and6.9Hz,2H), 2.70(e,3H), 3.21(e,3H), 3.55(e,3H), 3.77(e,3H), 4.04(t,J=6.9Hz,2H), 5.17·5.28(m,1H), 6.84(s,1H), 7.04(dd,J=8.4and8.4Hz,1H), 7.11·7.22(m,2H), 7.34·7.42(m,2H), 7.65·7.75(m,2H), 1.34·7.42(m,2H), 7.65·7.75(m,2H), 1.34·7.42(m,2H), 1.65·7.75(m,2H), 1.34·7.42(m,2H), 1.34·7.42(m	7 1.68(s,3H),1.75 (),5.17-5.28(m,1H	(d,J=0.9Hz,3F),6.84(s,1H),7	1),2.55(dt,J=6.9 .04(dd,J=8.4ar	Jand6.911z,2H),	2.70(e,3H),3.2 11-7.22(m,2H),	1(s,3H),3.55(8,3H),3.77(6,3H 2H),7.65-7.76(n	4 8
16:1	HINMR(CDCl ₃) & 2.96(s,3H),3.52(s,3H),3.58(s,6H),3.73(s,3H),4.89(s,2H),5.19(s,2H),5.23(s,2H),5.25(s,2H),6.68(s,1H),6.98(d,3=8.411z,1H),7.04(dd,3=8.4and2.1Hz,1H),7.11(m,2H),7.25(d,3=2.1Hz,1H),7.30-7.40(m,5H),7.51(m,2H) HR(Klb ₁)2952,2935,2836,1609,1621,1477,1463,1438,1383,1269,1249,1228,1183,1153,1130,1116,1078,1066,1020,1008,984,922,903,832,801,730cm ⁻¹	2.96(s,3H),3.52 04(dd,J=8.4and2. 15,2896,1609,152	(8,3H),3.58(s, .1Hz,1H),7.11	6H),3.73(6,3H) (m,2H),7.25(d,	,4.89(8,2H),5.16 J=2.1Hz,1H),7. ,1249,1228,116	(s,2H),5.23(s,3 30-7.40(m,6H) i3,1153,1130,1	H),5.25(s,2H) 7.51(m,2H) 116,1078,106	1),6.68(a, 1H),6.9 66,1020,1008,96	<u>®</u> 4,
1.92	mp122-124°C ¹ HNMR(CDCl ₃) δ 2.70(brs,3H),3.55-3.60(br,2H),3.60(s,3H),3.75(s,3H),3.81-3.83(m,2H),3.87(s,3H),5.15(s,2H),5.68(s,1H),6. ¹ 69(s,1H),6.94(dd,J=2.1,8.4Hz,1H),6.97-7.03(m,3H),7.07(d,J=1.8Hz,1H),7.38-7.48(m,5H),7.51-7.56(m,2H) ¹ 18(KBr)3600-2800(br),1607,1597,1550,1518,1477,1462,1452,1289,1248,1228,1175,1122,1096,1084,1015cm ⁻¹	3 2.70(brs,3H),3.3 J=2.1,8.4Hz,1H),00(br),1607,1597,1	55-3.60(br,2H 6.97-7.03(m,3 1550,1518,147),3.60(s,3H),3. [°] (H),7.07(d,J=1.7 77,1462,1452,1	75(s,3H),3.81.3 4Hz,1H),7.38-7 392,1289,1248,	.83(m,2H),3.87 .48(m,5H),7.51 1228,1176,112	(s,3H),5.15(s -7.56(m,2H) 2,1096,1084,	1015cm ⁻¹	9
£6-1	1HNMR(CDCl ₃) δ 2.59(dt,J=6.6,6.6Hz,2H),3.45(e,3H),3.74(e,3H),4.15(t,J=6.6Hz,2H),5.15(dm,J=10.2Hz,1H),5.21(dm,J=17. 111z,111),5.90(m,111),6.45(e,1H),6.92(d,J=8.4Hz,2H),6.95(e,2H),7.06(brs,1H),7.53(d,J=8.4Hz,2H) 11(Nujol)3670,3526,3336,3205,1616,1596,1524,1493,1409,1315,1286,1264,1239,1225,1117,1072,821,783cm ⁻¹	2.59(dt,J=6.6,6. III),6.45(s,1H),6.9 25,3336,3205,161	6Hz,2H),3.45)2(d,J=8.4Hz, 16,1596,1524,	(8,3H),3.74(8,3 211),6.95(8,2H) 1493,1409,131	H),4.15(t,J=6.6) 7.06(brs,1H),7. 5,1286,1264,12	Hz,2H),5.15(dr 53(d,J=8.4Hz, 39,1225,1117,	n,J=10.2Hz,1 2H) 072,821,783	IH),5.21(dm,J=1 cm ⁻¹	7.
I-94	¹ HNMR(CDCl ₃) δ 0.36(m,2H),0.66(m,2H),1.31(m,1H),3.45(e,3H),3.74(e,3H),3.91(d,J=7.2Hz,2H),6.44(e,1H),6.91(d,J=8.7Hz,2H),6.93(m,2H),7.07(d,J=1.8Hz,1H),7.53(d,J=8.7Hz,2H) ² H),6.93(m,2H),7.07(d,J=1.8Hz,1H),7.53(d,J=8.7Hz,2H) ¹ IR(Nujol)3570,3491,3364,3178,1617,1598,1583,1524,1494,1408,1313,1285,1266,1240,1224,1115,1072,1011,822,786cm ⁻¹	3 0.36(m,2H),0.66 .07(d,J=1.8Hz,1F 191,3364,3178,16	(m,2H),1.31(n 1),7.53(d,J=8. 17,1598,1583,	n, 1H),3.46(s,3F 7Hz,2H) 1524,1494,140	1),3.74(8,3H),3. 8,1313,1285,12	91(d,J=7.2Hz, 66,1240,1224,	2H),6.44(6,1H	I),6.91(d,J=8.7F	ź _
1.95	¹ HNMR(CDCl ₃) δ 1.86(8,3H),3.45(8,3H),3.74(8,3H),4.54(8,2H),5.04(brs,1H),5.12(brs,1H),6.45(8,1H),6.91(d,J=8.7Hz,2H),6.9 5(m,2H),7.08(brs,1H),7.53(d,J=8.7Hz,2H) 10.08(brs,1H),7.53(d,J=8.7Hz,2H) 10.08(brs,1H),7.53(d,J=8.7Hz,2H) 10.09,1284,1265,1238,1226,1115,1073,1011,887,821,782cm ⁻¹	1.86(8,3H),3.45(,1H),7.53(d,J=8.7 ,64,3179,1614,158	(a,3H),3.74(a,3 Hz,2H) 36,1524,1493,	3H),4.54(8,2H), 1407,1309,128	5.04(brs,1H),5. 4,1265,1238,12	12(brs,1H),6.4((e,1H),6.91(c	d,J=8.7Hz,2H),(6.

Table 28

	$HINMR(CHICH) \\ 0 \\ 2.58(t, J=2.4Hz, 1H), \\ 3.45(s, 3H), \\ 3.74(s, 3H), \\ 4.79(d, J=2.4Hz, 2H), \\ 6.46(s, 1H), \\ 6.92(d, J=8.7Hz, 2H), \\ 6.98(dd, J=8.7Hz, 2H), \\ 6.98(dd,$
1-96	8.4,2.111z,111),7.07(d,J=8.411z,111),7.09(d,J=2.111z,111),7.53(d,J=8.7Hz,2H)
	111(1111)01/0110,0604,1014,1005,1104,0604,1014,0604,111,0604,0114,0114,
1	111NM18(CH)CH) & 2.71(8,3H), 3.21(8,3H), 3.38(8,3H), 3.76(8,3H), 3.78(8,3H), 5.47(8,2H), 5.64(8,1H), 7.00(a,5-6.0H2, 1H), 7.54(aa
1.97	,J=8.G,2.011z,111),7.38(d,J=8.811z,2H),7.4G(d,J=2.011z,111),7.55(m,211),7.67(m,1H),7.68(d,J=8.8Hz,2H),7.99(m,2H)
	m.p.200-203°C
	111111111111111111111111111111111111
1.98	111), 7.21(d, J=8.1112,211), 7.34(d, J=8.1112,211), 7.34(dd, J=8.7,2.4112,111), 7.38(d, J=8.712,211), 7.40(d, J=2.412,111), 7.68(d, J=8.7,111), 7.81(d, J=8.7,111), 7.
	Hz,2H)
	IR(Nujol)1608,1520,1480,1359,1173,1156,1078,1016,976,948,872,818,791cm-'
	$ \text{HNMR}(\text{CI)CL}_{13}) \ \delta \ 2.72(\text{s},3\text{H}), 3.13(\text{s},3\text{H}), 3.21(\text{s},3\text{H}), 3.55(\text{s},3\text{H}), 3.78(\text{s},3\text{H}), 5.15(\text{s},2\text{H}), 6.84(\text{s},1\text{H}), 7.09(\text{d},\text{J}=\text{8.7}\text{Hz},1\text{H}), 7.12(\text{dd},\text{J}=\text{8.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text{9.7}\text{Hz},\text{J}=\text$
66-1	,J=8.7,7.211z,1H),7.35(dd,J=8.7,2.1Hz,1H),7.38(d,J=8.7Hz,2H),7.40(d,J=2.1Hz,1H),7.46(dd,J=8.7,5.1Hz,1H),7.68(d,J=8.7H
	2,2[1)
	1EC
I-100	, J = 8.4, 1.8 Hz, 1H), 7.36 (dd, J = 8.4, 1.8 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H), 7.42 (d, J = 1.8 Hz, 1H), 7.45 (d, J = 1.8 Hz, 1H), 7.59 (d, J = 8.4 Hz, 1H), 7.59 (d, J =
),7.68(d,J=8,7Hz,2H)
	m.p.103·105°C
•	·HNMR(CDCl ₃) δ 2.18(dd,J=1.5,1.2Hz,3H),3.45(s,3H),3.74(s,3H),4.79(dd,J=5.7,1.2Hz,2H),5.81(dt,J=5.7,1.5Hz,2H),5.45(s,
1.101	1H),6.92(d,J=8.7Hz,2H),6.95(s,1H),6.96(s,1H),7.07(s,1H),7.52(d,J=8.7Hz,2H)
	IR(KBr)3527,3328,2930,1614,1593,1523,1492,1463,1408,1262,1235,1225,1119,1072,1010,828,805cm-'

Table 29

	j)	,		:	
1.102	m.p.95-99°C HNMR(CDCla) & 3.4 I(m,2H),7.04(d,J=1.8I	m.p.95-99% !HNMR(CDC!:)	211),6.47(m,111),6	.55(dd,J=2.7,1	2Hz,1H),6.45(s,1F	4),6.92(d,J=8	1.7Hz,2H),7.0
1.103	HINMR(CDCl3) & 3.4 H),6.96(brs,2H),7.08(b	411NMR(CDC)3) & 3.45(8,3H), 3.75(8,3H), 4.59(d,J=4.2Hz,2H), 6.45(8,1H), 6.45(m,1H), 6.55(d,J=12.9Hz,1H), 6.92(d,J=8.7Hz,2H), 6.96(brs,2H), 7.08(brs,1H), 7.53(d,J=8.7Hz,2H)	,J=4.2112,211),6.4 [)	5(s, 11I),6.45(m	111),6.55(d,J=12.5	Hz, 111),6.92	(d,J=8.7Hz,2
1.104	HINMR(CDCl ₃) & 3.46 11D,6.45(9,11D,6.91(d,	HINMR(CDCl ₃) 5 3.45(8,3H),3.75(8,3H),4.64(dd,J=6.0and1.2Hz,2H),6.23(dt,J=13.2and6.0Hz,1H),6.42(dt,J=13.2and1.2Hz, HI),6.45(8,1H),6.91(d,J=8.7Hz,2H),6.96(brs,2H),7.08(brs,1H),7.58(d,J=8.7Hz,2H)	,J=6.0and1.2Hz, ,7.08(brs,111),7.5	211),6.23(dt,J= 8(d,J=8.711z,21	13.2and6.0Hz,1H) 1)	,6.42(dt,J=1:	3.2and 1.2Hz,
1.105	HNMR(CDCl ₃) & 3.4 H,dt,J=15.3,6.0Hz,1H)	111NMR(CDCl3) 6 3.46(9,311),3.75(8,311),3.98(d-like,J=7.2Hz,111),4.64(d-like,J=3.9Hz,111),6.04(dt,J=15.3,4.8Hz,111),6.06(1 11,dt,J=15.3,6.0Hz,111),6.45(8,111),6.92(d,J=8.7Hz,2H),6.95(8,1H),7.08(8,2H),7.53(d,J=8.7Hz,2H)	like,J=7.2Hz,1HI lz,2H),6.95(s,1H)	,4.64(d-like,J= ,7.08(s,2H),7.5	3.9Hz,1H),6.04(dt 3(d,J=8.7Hz,2H)	,J=15.3,4.8H	lz,1H),6.06(1
1.106	foam ¹ HNMR(CDCl ₃) <i>ô</i> 1.70 H),5.70(s,1H),6.70(dd, ₅ IR(K <u>B</u> r)3410,1520,147	(Cl ₃) δ 1.76(s,3H),1.83(s,3H),2.08(s,3H),3.36(s,3H),3.71(s,3H),4.61(d,J=7.0Hz,2H,),4.94(s,1H),5.54(t,J=7.0Hz,1 l),6.70(dd,J=8.4,2.0Hz,1H),6.74(s,1H),6.84(d,J=2.0Hz,1H) 0,1520,1476,1390,1243,1225,1101,1084,834,812,775cm ⁻¹	3H),3.36(s,3H),3. 1),6.84(d,J=2.0H ₁ 084,834,812,775c	71(s,3H),4.61(,,1H) m ⁻¹	1,J=7.0Hz,2H,),4.9	14(8,1H),5.54	(t,J=7.0Hz,1
1.107	m.p.112-114°C ¹ HNMR(CDCl ₃) δ 3.03(s,3H),3 H),7.38-7.51(m,5H),7.53(m,2H) IR(KBr)3512,2952,2936,1607,1 1cm ⁻¹	m.p.112-114°C !HNMR(CDCl ₃)	3H),3.87(8,3H),4.! 382,1284,1253,1	00(S,2H),5.15(a	,2H),5.63(brs,1H), 1156,1112,1079,1	6.68(s, 1H),6	.91-7.07(m,5 3,956,914,83
I-108	¹ HNMR(CDCl ₃) δ 2.20 d,J=8.4Hz,1H),7.34-7.4	Cl ₃) δ 2.20(d,J=1.2Hz,3H),2.76(e,3H),3.22(e,3H),3.24(e,3H),3.56(e,3H),3.78(e,3H),4.65(m,2H),5.96(m,1H),7.07(H),7.34-7.41(m,4H),7.68(m,2H)	I),3.22(8,3H),3.24	(s,3H),3.56(s,3	H),3.78(8,3H),4.65	(m,2H),5.96	(m, 1H),7.07(

Table 30

	m.p.153-154°C
	111111111111111111111111111111111111
601 -	8,1H),7.10(d,J=8.1Hz,1H),7.34-7.41(m,4H),7.68(m,2H)
	IR(KBr)1519,1481,1390,1364,1234,1177,1150,1119,1077,1011,969,945,876,816,799,521cm 1
31	$^{1}\text{HNMR(CDC3a)} \ \delta \ \ 2.68(\text{s}, 3\text{H}), 3.11(\text{s}, 3\text{H}), 3.21(\text{s}, 3\text{H}), 3.56(\text{s}, 3\text{H}), 3.78(\text{s}, 3\text{H}), 3.83(\text{s}, 3\text{H}), 5.11(\text{s}, 2\text{H}), 6.84(\text{s}, 1\text{H}), 6.93(\text{d}, 3\text{Hz}, 2\text{Hz}), 3.83(\text{s}, 3\text{Hz}), 3.83(\text{s}, 3\text{Hz}$
011:1	211),7.16(d,J=8.711z,111),7.35(dd,J=8.7,2.111z,111),7.36-7.40(m,511),7.68(d,J=8.7Hz,211)
	111NMR((3DC3a) & 2.78(4,3H), 3.22(4,6H), 3.55(4,3H), 3.78(4,3H), 5.23(4,2H), 6.85(6,1H), 7.08(d,J=8.7Hz,1H), 7.34(dd,J=8.7,2.1
	112,111),7.39(d, J=8.7Hz,211),7.42(d, J=2.111z,111),7.44(brs,211),7.68(d, J=8.7Hz,2H),8.70(brs,2H)
	1HNMR(CDC13) & 2.70(s,3H),3.21(s,3H),3.24(s,3H),3.55(s,3H),3.78(s,3H),5.33(s,2H),6.84(s,1H),7.15(d,J=8.4Hz,1H),7.27(dd
1.112	J=7.5,4.2Hz,111),7.33(dd,J=8.4,2.4Hz,111),7.38(d,J=8.7Hz,2H),7.42(d,J=2.4Hz,1H),7.62(brd,J=7.5Hz,1H),7.68(d,J=8.7Hz,2H)
	H), 7.76(ddd, J=7.5,7.5,1.8Hz, 1H), 8.61(d, J=4.2Hz, 1H)
	1HNMR(CDC!3) § 2.76(s,3H),3.15(s,3H),3.21(s,3H),3.55(s,3H),3.78(s,3H),5.22(s,2H),6.85(s,1H),7.17(d,J=8.4Hz,1H),7.38(dd
1.113	,J=8.4,2.1Hz,1HJ,7.38(m,1H),7.39(d,J=8.7Hz,2H),7.42(d,J=2.1Hz,1H),7.68(d,J=8.7Hz,2H),7.88(d,J=7.8Hz,1H),7.64(brs,1H)
	,8.73(brs,111)
	111NMR(CDCl ₃) δ 3.45(9,3H),3.74(9,3H),5.10(9,2H),6.45(9,1H),6.91(d,J=8.7Hz,2H),6.95(dd,J=8.4,2.1Hz,1H),7.03(d,J=8.4Hz
1.114	1-114 ,111),7.08(d,J=2.111z,111),7.23(brd,J=7.8Hz,211),7.34(brd,J=7.8Hz,2H),7.53(d,J=8.7Hz,2H)
	IR(Nujol)3464,3344,1611,1581,1523,1490,1266,1113,1073,1011,1000,821,782cm ⁻¹
	1HNMR(CDCl ₃) δ 3.45(ε,3H),3.75(ε,3H),5.11(ε,2H),6.45(ε,1H),6.92(d,J=8.7Hz,2H),6.96(dd,J=8.4,2.1Hz,1H),7.01(d,J=8.4Hz
1.115	, 111),7.09(d,J=2.111z,111),7.11(dd,J=8.7,8.711z,211),7.42(dd,J=8.7,5.4Hz,211),7.54(d,J=8.7Hz,211)
	IR(Nujol)3560,3400,1612,1589,1522,1492,1260.1225,1116,1068,1006,992,841,826,803,786cm ⁻¹

Table 31

-116	1HNMR(CDCl ₃) δ 3.45(s,3H),3.75(s,3H),5.23(s,2H),6.45(s,1H),6.92(d,J=8.7Hz,2H),6.97(brs,2H),7.11(brs,1H),7.31(dd,J=8.4, 2.11fz,1H),7.46(d,J=8.4Hz,1H),7.47(d,J=2.1Hz,1H),7.54(d,J=8.7Hz,2H) 1R(Nujol)3460,3359,1610,1594,1522,1490,1264,1164,1110,1072,1008,877,824,781cm ⁻¹
.117	<u> </u>
-118	11NMR(DMSO-d ₆) δ 3.29(a,3H),3.64(s,3H),5.20(a,2H),6.39(s,1H),6.64(dd,J=8.4,2.Hz,1H),6.79(d,J=2.1Hz,1H),6.84(d,J=8.7Hz,2H),6.92(d,J=8.4Hz,1H),7.43(d,J=8.7Hz,2H),7.52(d,J=6.0Hz,2H),8.59(d,J=6.0Hz,2H) 1R(Nujol)3473,3441,1610,1582,1523,1493,1404,1241,1112,1074,1005,816,782cm ⁻¹
.119	IHNMR(CDCl ₃) δ 3.45(9,3H),3.74(9,3H),5.27(9,2H),6.45(9,1H),6.92(dd,J=8.4,1.8Hz,1H),6.93(d,J=8.7Hz,2H),7.11(d,J=8.4Hz,1H),7.12(d,J=1.8Hz,1H),7.31(m,1H),7.36(brd,J=7.5Hz,1H),7.53(d,J=8.7Hz,2H),7.77(ddd,J=7.5,7.5,1.8Hz,1H),8.66(d,J=5.0 Hz,1H) Hz,1H) IR(Nujol)3555,3467,3342,1608,1597,1586,1522,1466,1210,1117,1080,1016,822,761cm ⁻¹
.120	¹ HNMR(CDCl ₃) δ 3.45(s, 3H), 3.74(s, 3H), 5.21(s, 2H), 6.46(s, 1H), 6.91(d, J=8.7Hz, 2H), 6.99(brs, 2H), 7.11(brs, 1H), 7.40(dd, J=7.5, 5.011z, 1H), 7.53(d, J=8.7Hz, 2H), 7.83(d, J=7.5Hz, 1H), 8.64(brd, J=5.0Hz, 1H), 8.74(brs, 1H) [1] (1) (1) (1) (1) (2) (1) (2) (1) (3) (1) (3) (1) (4) (1010, 827, 782cm ⁻¹)
.121	m.p.166-168°C !HNMR(CDCl ₃) δ 3.45(s,3H),3.75(s,3H),4.77(d,J=6.3Hz,2H),6.22(t,J=6.3Hz,1H),6.93(d,J=8.7Hz,2H),6.93(d,J=8.7Hz,1H),6. 98(dd,J=8.7,1.8Hz,1H),7.08(d,J=1.8Hz,1H),7.53(d,J=8.7Hz,2H) 1R(KBr)3474,3411,2957,2930,1615,1589,1569,1523,1492,1407,1286,1263,1230,1113,1070,825cm ⁻¹

Table 32

	m.p.190-192°C 111 NMR(CH)(21) & 2.56(s.3H), 3.22(s.3H), 3.79(s,3H), 5.17(s,2H), 5.73(s,1H), 6.84(s,1H), 6.93(dd, J=8.1and1.9Hz,1H)
1.122	7.02(d,J=8.1112,111),7.05(d,J=1.9Hz,1H),7.37-7.45(m,1H),7.71(d,J=8.6Hz,2H)
	IR(KBr)3512, 1519, 1484, 1367, 1174, 1150, 1078, 957, 870, 798cm
	loum '
	111111111111111111111111111111111111
1-123	71(d,J=8.7Hz,2H), 13.3·14.5(brs, 1H)
	IR(KBr):3422,1735,1702,1520,1471,1366,1175,1150,1118,971,954,863,807cm-1
	m.p.258-259°C(dec)
,	IINMR(DMSO-d6) Ø 3.32(8,3H), 3.69(8,3H), 5.10(2H,8), 6.65(dd, J=8.4,2.1Hz,1H), 6.79(d, J=2.1Hz,1H), 6.86(d, J=8.4Hz,2H), 6.
1.124	90(s,1H),6.94(d,J=8.4Hz,1H),7.30-7.54(m,7H),8.98(s,1H),9.63(s,1H)
	IR(KBr):3437,3157,1702,1610,1590,1521,1474,1464,1379,1260,1245,1224,1061,1014,952,834,793,748,698cm ⁻¹
	HNMR(CDCl3) & 1.75(8,3H), 1.81(8,3H), 3.21(8,3H), 3.41(8,3H), 3.68(8,3H), 3.77(8,3H), 4.61(d, J=6.8Hz, 2H), 5.50(t, J=6.8Hz, 1H
1.125), 6.93(8,114), 7.02(d, J=8.5Hz, 114), 7.27(d, J=8.5, 2.3Hz, 114), 7.33(dd, J=2.3Hz, 114), 7.38(d, J=8.6Hz, 2H), 7.71(d, J=8.6Hz, 2H)
1.126),5.67(s,111),6.83(dd,J=8.4,2.1Hz,1H),6.87(s,1H),6.90-6.93(m,3H),6.98(d,J=2.1Hz,1H),7.54(d,J=9.0Hz,2H)
	m.p.116·117°C
	1HNMR(DMSO-d6) δ 1.72(6,3H),1.76(8,3H),3.32(8,3H),3.70(8,3H),4.53(d,J=7.1Hz,2H),5.48(t,J=7.1Hz, \dot{H}),6.65(dd,J=8.4,2.1
1.127	$H_{z_1}H_{1,6}$, $73(d,J=2.1H_{z_1}H)$, $6.86(d,J=8.6H_{z_1}2H)$, $6.88(d,J=8.4H_{z_1}H)$, $6.93(s,1H)$, $7.47(d,J=8.6H_{z_1}2H)$, $8.84(s,1H)$, $9.62(s,1H)$, 1.11
	1.9-13.4(brs,1H)
	IR(KBr):3446,1703,1611,1593,1520,1471,1380,1260,1225,1081,997,952,838cm ⁻¹

Table 33

1.128	oil "HNMR(CDCl ₃) \(\delta\) 1.65(8,3H), 1.78(8,3H), 2.96(8,3H), 3.22(8,3H), 3.25(8,3H), 3.55(8,3H), 3.79(8,3H), 4.77(d, J=7.8Hz,2H), 5.53(t, J=7.8Hz,1H), 7.39\(\delta\) 7.39\(\delta\) 7.7(ABq, J=8.7Hz,4H), 7.70(d, J=2.1Hz,1H), 7.86(d, J=2.1Hz,1H), 10.36(8,1H) [R(CHCl ₃)1691, 1473, 1374, 1230, 1226, 1209, 1178, 1152, 1086, 969, 874, 805cm ⁻¹
1.129	oil IIINMR(CI II),4.77(s,2] IR(CHCls)1
1.130	m.p.189-190°C "HNMR(CDCL ₁) & 1.36(s,9H),2.81(s,3H),3.22(s,3H),3.30(s,3H),3.56(s,3H),3.79(s,3H),6.86(s,1H),7.36-7.42(m,3H),7.54(d,J=1 .811z,1H),7.67-7.72(m,3H) .RI(KBr)1472,1363,1331,1179,1153,1082,961,950,877,846,817,791,526cm ⁻¹
1.131	m.p.147-148°C 'IINMR(CDCRs) & 2.95(s,3H),3.18(s,3H),3.22(s,3H),3.55(s,3H),3.79(s,3H),5.28(s,2H),6.86(s,1H),7.38-7.44(m,7H),7.67(m,2H),7.75(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1H),7.83(d,J=2.1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,
1.132	m.p.122-124°C 'HNMR(CDCI:) \$\delta\$ 1.68(8,3H), 1.74(8,3H), 2.80(8,3H), 3.28(8,3H), 3.28(8,3H), 3.56(8,3H), 3.62(d,J=7.8Hz,2H), 3.78(8,3H), 5.31(m, 1H), 6.85(8,1H), 7.34(dd,J=8.1Hz,J=1.8Hz,1H), 7.39&7.68(ABq,J=8.7Hz,4H), 7.43(d,J=8.1Hz,1H), 7.46(d,J=1.8Hz,1H) IR(KBr)1474, 1362, 1180, 1151, 1076, 1014, 968, 944, 870, 816, 799, 521cm ⁻¹
1.133	

Table 34

m.p. 167 168 C. HINMR(CDCH3) & 1.39(d,J=1.211z,3H), 1.70(s,3H),3.36(d,J=8.1Hz,2H),3.45(s,3H),3.74(s,5) HI) 6.45(s,1H),6.78(s,1H),6.93&7.54(Abq,J=8.7Hz,4H),6.96(dd,J=7.8Hz,J=1.8Hz,1H),7.00 HI) 1052,1014,941,835,816,687,542cm IIIR(KBr)3413,3365,293P,1611,1652,1520,1502,1475,1455,1441,1402,1360,1323,1262,122,1081,1052,1014,941,835,816,687,542cm IIIR(KBr)3383,2929,1699,1523,1491,140,7.10(d,J=1.8Hz,1H),7.53(d,J=8.7Hz,2H) HR(KBr)3383,2929,1699,1523,1491,1406,1265,1236,1141,1753(d,J=8.7Hz,2H) HR(KBr)3383,2929,1699,1523,1491,1406,1265,1236,1141,173,1116,1071,1011,822cm ⁻¹ HRNMR(CDAOD) & 1.26(s,3H),1.29(s,3H),3.88(s,3H),3.68(s,3H),3.68(s,3H),3.68(s,3H),3.68(s,3H),3.68(s,3H),3.68(s,3H),3.68(s,3H),4.76(d,J=8.7Hz,2H) HRNMR(CDAOD) & 3.38(s,3H),3.68(s,3H),4.02(dd,J=1.0,3.6Hz,1H),4.12(dd,J=11.0,1.8Hz,2H) HRNMR(CDAOD) & 3.38(s,3H),3.68(s,3H),4.76(d,J=8.7Hz,2H),6.43(s,1H),6.80(dd,J=8.1,2.Hz,1H) HRNMR(CDBOD) & 3.38(s,3H),3.68(s,3H),4.76(d,J=8.7Hz,2H),6.43(s,1H),6.98(d,J=8.1Hz,1H),7.46(d,J=8.7Hz,2H),6.43(s,1H),6.98(d,J=8.1Hz,1H),7.62(t,J=5.4Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.92(s,3H),4.75(d,J=5.4Hz,2H),7.68(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),4.75(d,J=6.1Hz,2H),7.68(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),7.58(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),7.58(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),7.58(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),7.58(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),7.52(t,J=5.1Hz,1H),7.68(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),7.52(t,J=5.1Hz,2H),7.68(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),7.52(t,J=5.1Hz,2H),7.68(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),4.75(d,J=5.1Hz,2H),7.68(t,J=5.1Hz,1H) HRNMR(CDCD) & 3.45(s,3H),3.74(s,3H),3.52(s,3H),4.75(d,J=5.1Hz,2H),7.68(t,J=5.1Hz,1H),7.62(t,J=5.1Hz,1H),7.62(t,J=5.1Hz,1H),7.62(t,J=5.1Hz,1H),7.62(t,J=6.1Hz,1H),7.62(t,J=6.1Hz,1H),7.62(t,J=6.1Hz,1H),7.62(
	m.p.167-168 C	
	4HNMR(CDC33) & 1.39(d,J=1.2Hz,3H), 1.70(s,3H),	DC13) 6 1.39(d,J=1.2Hz,3H), 1.70(s,3H),3.36(d,J=8.1Hz,2H),3.45(s,3H),3.74(s,3H),4.98(s,1H),5.29(m,1H),5.96(s,1
		II), 6.45(8, 111), 6.78(8, 111), 6.93&7.54(ABq,J=8.7Hz,4H), 6.96(dd,J=7.8Hz,J=1.8Hz,1H), 7.09(d,J=1.8Hz,1H), 7.49(d,J=7.8Hz,1
	F.134 [1]	
1081,1052 m.p.183-18 11NMR(Cl dd,J=8.1,1 IR(KBr)33 11R(KBr)33 11R(Nujol)3	IR(KBr)3413,3365,2931,1611,1552,1520,1502,147	IR(KBr)3413,3365,2931,1611,1552,1520,1502,1475,1455,1441,1402,1360,1323,1262,1227,1206,1182,1170,1162,1114,1100
m.p.183-18 11NMMR(Cl dd,J=8.1,1. 1R(K.Dr.)333 14NMR(Cl =9.6,2.74z 8.74z,24) 1R(Nujol)3 1R(Nujol)3 1R(Nujol)3 1R(Nujol)3 1R(Nujol)3 1R(Nujol)3 1R(Nujol)3 1R(Nujol)3 1R(Nujol)3	,1081,1052,1014,941,835,816,587,542cm ¹	
111NMR(CI dd,J=8.1,1. IR(KBr)333 14NMR(CI =9.6,2.74z 8.74z,24) IR(Nujol)3 11R(Nujol)3 11R(Nujol)3 14NMR(CI d,J=2.14z, IR(Nujol)3 14NMR(CI d,J=2.14z, IR(Nujol)3	m.p.183-184°C	
dd,J=8.1,1. IR(K.Br.)333 'HNMR(C! =9.6,2.7Hz 8.7Hz,2H) IR(Nujol)3 'HNMR(C! d,J=2.1Hz, IR(Nujol)3 'HNMR(C! T.00(dd,J=1PANL:C)3	"HINMR(C	$(10013) \delta(3.46(s,3H),3.74(s,3H),3.83(s,3H),4.78(m,2H),5.99(m,1H),6.44(m,1H),6.45(s,1H),6.92(d,J=8.7Hz,2H),6.94(d,J=8.7Hz,2H)$
1R(KBr)33 1HNMR(CI =9.6,2.7Hz 8.7Hz,2H) 1R(Nujol)3 1HNMR(CI 3(8,1H),6.8 1R(Nujol)3 1HNMR(CI d,J=2.1Hz, 1R(Nujol)3 1HNMR(CI 7.00(dd,J=1PANL;2)3	dd,J=8.1,1.	8Hz, 1H),7.53(d,J=8.7Hz,2H)
14NMR(CI = 9.6,2.74kz 8.74kz,24) 1R(Nujol)3 1H(Nujol)3 1R(Nujol)3 1HNMR(CI d,J=2.14kz,110,00(dd,J=100(dd,J=100))3	IR(KBr)3383,2929,1699,1523,1491,1405,1262,123	,1206,1173,1116,1071,1011,822cm ⁻¹
=9.6,2.7Hz 8.7Hz,2H) IR(Nujol)3 !HNMR(Cl 3(s,1H),6.8 IR(Nujol)3 !HNMR(Cl d,J=2.1Hz, IR(Nujol)3 !HNMR(Cl 7.00(dd,J=	1HNMR(CD ₃ OD) δ 1.26(s,3H),1.29(s,3H),3.38(s,3F	HNMR(CD ₃ OD) δ 1.26(6,3H), 1.29(8,3H), 3.38(8,3H), 3.68(8,3H), 3.80(dd, J=8.4,2.7Hz, 1H), 3.96(dd, J=9.6,8.4Hz, 1H), 4.34(dd, J=0.0,0)
8.7Hz,2H) IR(Nujol)3 IIR(Nujol)3 IR(Nujol)3 IR(Nujol)3 IR(Nujol)3 IR(Nujol)3 IR(Nujol)3 IR(Nujol)3 IR(Nujol)3 IR(Nujol)3		=9.6,2.7Hz,111),6.44(s,1H),6.80(dd,J=8.1,1.8Hz,1H),6.85(d,J=8.7Hz,2H),6.86(d,J=1.8Hz,1H),7.96(d,J=8.1Hz,1H),7.46(d,J=
1R(Nujol)3 1HNMR(Cl 3(s,1H),6.8 1R(Nujol)3 1HNMR(Cl d,J=2.1Hz, 1R(Nujol)3 1HNMR(Cl 7.00(dd,J=1PANL: 1PANL:		
141NMR(C) 3(8,1H),6.8 11R(Nujol)3 14NMR(C) 4,J=2.1Hz, 11R(Nujol)3 14NMR(C) 7.00(dd,J=1	1R(Nujol)3367,1612,1588,1523,1489,1254,1226,11	5,1072,1013,940,814cm ⁻¹
3(8,1H),6.8 1R(Nujol)3 1HNMR(Cl d,J=2.1Hz, 1R(Nujol)3 1HNMR(Cl 7.00(dd,J=1PANL:12)3	HINMR(CD ₃ OD) δ 3.38(s,3H),3.68(s,3H),4.02(dd,	HINMR(CD3OD) & 3.38(s,3H),3.68(s,3H),4.02(dd,J=11.0,3.6Hz,1H),4.12(dd,J=11.0,1.8Hz,1H),5.48(dd,J=3.6,1.8Hz,1H),6.4
1R(Nujol)3 1HNMR(Cl d, J=2. 1Hz, 1R(Nujol)3 1HNMR(Cl 7.00(dd, J=1		J=8.7Hz,2H)
14NMR(C) d, J=2. 14z, 1R(Nujol)3 14NMR(C) 7.00(dd, J=1	IR(Nujol)3410,1612,1588,1622,1487,1269,1231,11	4,1071,1011,947,824cm ⁻¹
d,J=2.1Hz, IR(Nujol)3 'HNMR(Cl 7.00(dd,J=	1HNMR(CD ₃ OD) δ 3.38(s,3H),3.68(s,3H),4.70(d,J=	$0.30D$) δ 3.38(s, 3H), 3.68(s, 3H), 4.70(d, J=5.4Hz, 2H), 6.43(s, 1H), 6.80(dd, J=8.1, 2.1Hz, 1H), 6.85(d, J=8.4Hz, 2H), 6.88(d,
IR(Nujol)3 HNMR(Cl 7.00(dd,J=		2H),7.62(t,J=5.4Hz,1H)
HNMR(CI	IR(Nujol)3368, 1612, 1589, 1623, 1489, 1253, 1226, 11	4,1072,1011,940,825cm ⁻¹
7.00(dd,J=	1HNMR(CDCl ₃) & 3.45(8,3H),3.74(8,3H),3.92(8,3H)	$0.00(1), \delta = 3.45(8,3H), 3.74(8,3H), 3.92(8,3H), 4.75(4,J=5.1Hz,2H), 6.45(8,1H), 6.91(4,J=8.7Hz,2H), 6.92(4,J=6.0Hz,1H), 6.91(4,J=8.7Hz,2H), 6.9$
101 (101) 111 1 10 10 10 10 10 10 10 10 10 10 10	7.00(dd,J=	,J=8.7Hz,2H),7.58(t,J=5.1Hz,1H)
1R(MJOI)3335, 1012, 1003, 1043, 1403, 1422, 1410, 101, 101, 101, 101, 101, 101, 10	IR(Nujol)3399, 1612, 1589, 1523, 1489, 1262, 1226, 1115, 1072, 1043, 1014, 941, 825cm ⁻¹	5,1072,1043,1014,941,825cm ⁻¹

Table 35

55

50	45	40	35	30	25	. 20	15	. 10	5
1.140	¹ HNMR(CD ₃ O1)) δ 3.38(s,3H),3.68(s,3H),4.51(s,2H),4.71(d,J=5.4Hz,2H),6.43(s,1H),6.80(dd,J=8.4,2.1Hz,1H),6.85(d,J=8.4Hz,2H),6.87(d,J=2.1Hz,1H),6.98(d,J=8.4Hz,1H),7.46(d,J=8.4Hz,2H),7.76(t,J=5.4Hz,1H) ² (2H),6.87(d,J=2.1Hz,1H),6.98(d,J=8.4Hz,1H),7.46(d,J=8.4Hz,2H),7.76(t,J=5.4Hz,1H) ³ (2H),6.87(d,J=2.1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,	3.38(s,3H),3.68 Hz,1H),6.98(d,J 1,1588,1523,148	38,1252,1227,	2H),4.71(d,J=t 46(d,J=8.4Hz, 1115,1072,101	211),7.76(t,J=5. 4,824,758cm	,8,1H),6.80(dd,	J=8.4,2.1H	z,1H),6.85(d,J=	8.4H
1-141	4HNMR(CDCh) 5 3.45(9,3H),3.74(8,3H),4.76(4,J=5.1Hz,2H),5.15(8,2H),6.46(8,1H),6.86(4,J=8.4Hz,1H),6.92(4,J=8.7Hz,2H),6.94(dd,J=8.4,2.1Hz,1H),7.08(d,J=2.1Hz,1H),7.31-7.40(m,5H),7.53(d,J=8.7Hz,2H),7.65(t,J=5.1Hz,1H) [R(Nujol)3399,1611,1588,1523,1489,1251,1225,1115,1072,1013,940,825cm ⁻¹]	3.45(s,3H),3.74([z,1H),7.08(d,J= 1,1588,1523,148	8,3H),4.76(d,J 2.1Hz,1H),7.3 39,1251,1225,	=5.111z,211),5. 1-7.40(m,5H),' 1115,1072,101	15(s,2H),6.45(s 7.53(d,J=8.7Hz 3,940,825cm ⁻¹	,1H),6.86(d,J=	8.4Hz,1H) 5.1Hz,1H)	,6.92(d,J=8.7Hz	,2H),
1.142	11NMR(C1M3L,CD4OD1:1) & 3,26(4,3H),2.64(m,4H),3.13(m,4H),3.44(4,3H),3.73(4,3H),4.78(d,J=4.6Hz,2H),6.45(6,1H),6.90(d,J=8.7Hz,2H),6.90(dd,J=8.4,2.1Hz,1H),6.99(d,J=2.1Hz,1H),7.00(d,J=8.4Hz,1H),7.12(t,J=4.5Hz,1H),7.49(d,J=8.7Hz,2H) [R(Nujol)3492,3297,1607,1561,1523,1486,1247,1224,1113,1011,957,828,799cm ⁻¹]	0(dd,J=8.4,2.1H: 7,1607,1561,152	(H,:H1),2.6·1(m) z,1H1),6.99(d,J 23,1486,1247,	-2.1Hz,1H),7. -2.1Hz,1H),7. 1224,1113,101	1),:3.44(κ,:311),:3. 00(d,J=8.4Hz,1. 1,957,828,799c	7:3(s,311),4.78(H),7.12(t,J=4. m ⁻¹	d,J=4.5Hz, 5Hz,1H),7.	,211),6.45(s,111), 49(d,J=8.7Hz,2	6.90(H)
1.143	1HNMR(CDCha) \(\phi\) 3.09(m,4H),3.45(s,3H),3.74(s,3H),3.86(m,4H),4.82(d,J=4.2Hz,2H),6.44(s,1H),6.92(d,J=8.7Hz,2H),6.98(dd,J=8.4,1.8Hz,1H),7.00(t,J=4.2Hz,1H),7.04(d,J=8.4Hz,1H),7.07(d,J=1.8Hz,1H),7.53(d,J=8.7Hz,2H) IR(Nujol)3366,1611,1586,1523,1488,1268,1227,1114,1070,1011,823cm^1	3.09(m,4H),3.45 .00(t,J=4.2Hz,1 1,1586,1523,148	(8,3H),3.74(8,5 H),7.04(d,J=8, 18,1268,1227,1	311),3.86(m,411 411z,111),7.07(1114,1070,101),4.82(d,J=4.2F d,J=1.8Hz,1H) 1,823cm ⁻¹	Iz,2H),6.44(s,1,7.53(d,J=8.7H	H),6.92(d,e	J=8.7Hz,2II),6.9	98(dd
1.144	1HNMR(CDCl ₃) & 1.29(t,J=6.9Hz,3H),2.65(dd,J=15.9,6.6Hz,1H),2.81(dd,J=15.9,6.6Hz,1H),3.44(s,3H),3.75(s,3H),4.03(dd,J=11.4,6.9Hz,1H),4.66(ddt,J=6.9,6.6,2.4Hz,1H),6.44(s,1H),6.92(d,J=8.7Hz,2Hz,1H),6.96.7.01(m,3H),7.53(d,J=8.7Hz,2H)	1.29(t,J=6.9Hz, 20(q,J=6.9Hz,2),7.53(d,J=8.7Hz)	3H),2.65(dd,J H),4.35(dd,J= ² ,2H)	=15.9,6.6Hz,11	H),2.81(dd,J=1),4.66(ddt,J=6	5.9,6.6Hz,1H),	3.44(8,3H), H),6.44(8,1	3.75(8,3H),4.03 H),6.92(d,J=8.7	(dd,J Hz,2
1.145	oil ¹HNMR(CDCl₃) δ 1.68(s,3H),1.74(d,J=0.9Hz,3H),2.55(m,2H),3.44(s,3H),3.75(s,3H),4.04(t,J=7.2Hz,2H),4.97(brs,1H),5.23(m,1H),6.00(s,1H),6.45(s,1H),6.92&7.53(ABq,J=8.7Hz,4H),7.02(m,1H),7.17.7.22(m,2H) IR(KBr)1613,1525,1490,1475,1463,1454,1402,1304,1269,1231,1112,1072,1019,827cm⁻¹	1.68(s,3H),1.74 7.45(s,1H),6.92& 1.190,1475,1463	(d,J=0.9Hz,3F 7.53(ABq,J=8 ,1464,1402,13	f),2.55(m,2H), .7Hz,4H),7.02(04,1269,1231,	3.44(s,3H),3.75 m,1H),7.17-7.2 1112,1072,101	(s,3H),4.04(t,d (m,2H) 9,827cm ⁻¹	=7.2Hz,2F	I),4.97(brs, 1H),	5.23(

Table 36

IINMR(DMSO-da) & 3.35(8,3H), IINMR(DMSO-da) & 3.35(8,3H), IINMR(DMSO-da) & 3.35(8,3H), IINMR(CDCla) & 1.74(8,3H), 1.81 I.147 J.6.86-6.95(m,5H), 6.90(d, J=8.6Hz IINMR(CDCla) & 2.88(8,3H), 1.81 IINMR(CDCla) & 2.88(8,3H), 3.25 IINMR(CDCla) & 1.80(8,3H), 1.85 IINMR(CDCla) & 1.80(8,3H), 1.85 IINMR(CDCla) & 1.80(8,3H), 1.85 IINMR(CDCla) & 1.76(8,3H), 1.81 IINMR(CDCla) & 1.76(8,3H), 1.81 IINMR(CDCla) & 1.76(8,3H), 1.81 IINMR(CDCla) & 1.58(8,3H), 1.81 IINMR(CDCla) & 1.58(8,3H), 1.81 IINMR(CDCla) & 3.50(8,3H), 1.81 IRKBr)3580,3411,1611,1521,148 IRKBr)3580,3411,1611,1521,148 IRKMR(CDCla) & 3.50(8,3H), 3.74 IIN, 7.07 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.70 1.	m.p.256-257°C IIINMR(DMSO-da) & 3.35(8,311),3.44(8,311),3.74(8,311),5.22(8,211),7.06(8,111),7.28-7.56(m,1111),7.69(8,111),7.76(d,J=8.6Hz,2 II) IR(KBr):3479,3360,1672,1517,1465,1361,1339,1295,1261,1228,1172,1144,11118,1013,957,870,862,804,751cm ⁻¹ III.p163-164°C III.p163-164°C III.m.p163-164°C III.MR(CDCl3) & 1.74(8,311),1.81(8,311),3.73(8,311),4.58(d,J=6.811z,211),5.50(t,J=6.811z,111),5.80(8,111),6.37(8,111)
	2,1517,1465,1361,1339,1295,1261,1228,1172,1144,1118,1013,957,870,852,804,751cm ⁻¹ 3,3H),1.81(8,3H),3.43(8,3H),3.74(8,3H),4.58(d,J=6.8Hz,2H),5.50(t,J=6.8Hz,1H),5.80(8,1H),6.37(8,1H
	8,3H),1.81(8,3H),3.43(8,3H),3.74(8,3H),4.58(d,J=6.8Hz,2H),5.50(t,J=6.8Hz,1H),5.80(6,1H),6.37(6,1H
), 6.86-6.95(m,5H), 6.90(d,J=8.6Hz,2H), 6.99(s,1H), 7.49(d,J=8.6Hz,2H) 1R(KBr):3533,3412,3350, 1655, 1609, 1588, 1519, 1469, 1373, 1274, 1245, 1227, 1131, 1082, 1060,999,954,838cm ⁻¹
	1HNMR(CDCL3) & 2.88(s, 3H), 3.22(s, 3H), 3.54(s, 3H), 3.77(s, 3H), 5.35(m, 2H), 6.85(s, 1H), 7.24(d, J=9.0Hz, 1H), 7.39(d, J=8.7Hz, 2
	11), 7, 42.7, 46(m, 5H), 7.65(d.d., J=9.0&2.1Hz, 1H), 7.68(d., J=8.7Hz, ZH), 8.20(q., J=2.1Hz, 1H), 1.65(d., J=9.0&2.1Hz, 1H), 1.85(s., JH), 3.43(s., JH), 3.74(s., JH), 4.80(d., J=6.9Hz, ZH), 5.76(t., J=6.9Hz, 1H), 6.46(s., 1H), 6.92(d., J=1), 1.85(s., JH), 1.85(s., JH), 3.43(s., JH), 4.80(d., J=6.9Hz, ZH), 5.76(t., J=6.9Hz, 1H), 6.46(s., 1H), 6.92(d., J=6.9Hz, JH), 1.85(s., JH), 1.85(s., JH), 3.43(s., JH), 3.74(s., JH), 4.80(d., J=6.9Hz, ZH), 5.76(t., J=6.9Hz, JH), 6.46(s., JH), 6.92(d., J=6.9Hz, JH), 6.46(s., JH), 6.92(d., J=6.9Hz, JH), 6.46(s., JH), 6.46(s., JH), 1.85(s., JH), 1.85(s., JH), 3.43(s., JH), 3.44(s., JH), 4.80(d., J=6.9Hz, ZH), 5.76(t., J=6.9Hz, JH), 6.46(s., JH), 6.92(d., J=6.9Hz, JH), 6.46(s., JH), 6.46
	14(d,J=8.7Hz,1H),7.49(d,J=8.4Hz,2H)7.70(d.d,J=8.7&2.1Hz,1H),8.28(d,J=2.1Hz,1H)
	=6.3Hz,1H),6.84(s,1H),6.99(d,J=9.0Hz,1H),7.11(m,9H),7.70(d,J=9.0Hz,2H)
	IR(KBr)3432, 1607, 1512, 1479, 1364, 1234, 1176, 1151, 1079, 1016cm ⁻¹
	111NMR(COUCE) & 1.58(8,311), 1.81(8,311), 3.45(8,311), 3.73(8,311), 4.61(4, J=6.6Hz, 2H), 4.72(8,211), 5.52(t, J=6.6Hz, 111), 6.45(8, 111)
),6.91(d,J=8.7Hz,2H),6.98(d,J=8.4Hz,1H),7.36(d.d,J=8.4&2.1Hz,1H),7.38(d,J=2.1Hz,1H),7.50(d,J=8.4Hz,2H)
1	,3411,1611,1521,1485,1464,1397,1233,1113,1077,1024,1001cm ⁻¹
	HNMR(CDCl3) & 3.50(s, 3H), 3.77(s, 3H), 5.15(s, 2H), 5.72(s, 1H), 6.03(s, 2H), 6.71(d.d, J=8.4&2.1Hz, 1H), 6.91(d, J=8.4Hz, 1H), 6.
1,100 000000000000000000000000000000000	97(8,1H),6.98(d,J=8.4Hz,1H),7.07(8,1H),7.09(d.d,J=8.4&2.1Hz,1H),7.16(d,J=2.1Hz,1H),7.34-7.50(m,5H),989(8,1H)
IR(KBr)3446,1697,1587,1511,147	IR(KBr)3446,1697,1587,1511,1470,1383,1285,1240,1127,1036cm ⁻¹

Table 37

55

50	. 45	40	. 35	30	25	20	15	10	5
1.153	111NMR(CDCl ₃) & 3.78(s,3H),3.79(s,3H),4.87(s,1H),5.16(s,2H),5.70(s,1H),6.88-6.91(m,2H),6.97(s,1H),7.00(s,1H),6.99(d,J=8.1111),7.08(dd,J=2.1,8.4Hz,1H),7.23(d,J=2.1Hz,1H),7.34-7.49(m,7H)	5 3.78(s,3H),3.7 ,J=2.1,8.4Hz,1H	79(s,3H),4.87 1),7.23(d,J=2	(s,1H),5.16(s, .1Hz,1H),7.3	2H),5.70(s,1H 1-7.49(m,7H)	I),6.88-6.91(m,	2H),6.97(s,11	1),7.00(s,1H),	6.99(d,J=8
1.154	111NMR(CI 18-5.27(m, 0-7.64(m, 21	(Cl ₃) & 1.69(s,3H),1.74(s,3H),2.51-2.58(m,2H),3.19(s,3H),3.21(s,3H),3.79(s,3H),3.80(s,3H),4.07(t,J=6.9Hz,2H),5. [H),6.92(s,1H),6.95(s,1H),7.05(d,J=8.7Hz,1H),7.32-7.37(m,2H),7.49(dd,J=2.1,8.7Hz,1H),7.58(d,J=2.1Hz,1H),7.6 [H)	74(8,3H),2.51. ,1H),7.05(d,J	2.58(m,2H),3 =8.7Hz,1H),7	. 19(s,3H),3.2 .32-7.37(m,2]	1(a,3H),3.79(a, H),7.49(dd,J=2	3H),3.80(s,3H	f),4.07(t,J=6.9 ,7.58(d,J=2.11	9Hz,2H),5. Hz,1H),7.6
1-155	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	(Cl ₃) & 1.69(s,3H), 1.75(s,3H),2.53(q,J=6.9Hz,2H),3.77(s,3H),3.78(s,3H),4.07(t,J=6.9H: (s,1H),6.87-6.93(m,3H),7.07(dd,J=1.8,8.4Hz,1H),7.20(d,J=1.8Hz,1H),7.46-7.50(m,2H)	75(s,3H),2.53 H),7.07(dd,J=	(q,J=6.911z,21 =1.8,8.411z,11	I),3.77(s,3H) I),7.20(d,J=L	,3.78(s,3H),4.0 8Hz,1H),7.45-	7(t,J=6.9Hz,2 7.50(m,2H)	2H),4.97(s,3H)),6.20-6.25
1.156	m.p.163-175°C 'HNMR(CDCl.;) \$\delta\$ 2.76(s,3H),3.19(s,3H),3.22(s,3H),3.54(s,3H),3.79(s,3H),5.20(s,2H),5.68(s,1H),6.84(s,1H),6.97(d,J=1.8Hz, 1H),6.99(d,J=1.8Hz,1H),7.37-7.47(m,7H),7.68(m,2H) IR(KBr)3436,1480,1415,1391,1363,1233,1178,1151,1079,1024,969,953,875,801,522cm ⁻¹	3 2.76(s,3H),3. Hz,1H),7.37-7.4 0,1415,1391,13	19(6,3H),3.22 7(m,7H),7.68 63,1233,1178	(e,3H),3.54(e, (m,2H)	3H),3.79(s,3F	1),5.20(8,2H),5 875,801,522cm	.68(s,1H),6.8	4(a, 1H),6.97(d	1,J=1.8Hz,
1-157	m.p.176-178°C !HNMR(CDCl ₃) & 2.08(s,3H),2.40,(s,3H),2.72(s,3H),3.21(s,3H),3.22(s,3H),3.55(s,3H),3.79(s,3H),5.13(s,2H),6.86(s,1H),7.39a id7.68(ABq,J=8.7Hz,4H),7.47(d,J=2.1Hz,1H),7.49(d,J=2.1Hz,1H) IR(KBr)1770,1747,1477,1391,1366,1235,1180,1152,1077,873,799,522cm ⁻¹	3°C (Cl ₃)	0,(s,3H),2.72(J=2.1Hz,1H) 66,1 <u>2</u> 35,1180	(s,3H),3.21(s,5),7.49(d,J=2.1)	3H),3.22(8,3H Hz,1H) 73,799,522cn	l),3.55(8,3H),3.	79(8,3H),5.13	3(8,2H),6.86(s,	,1Н),7.39а
1-158	m.p.175-177°C ¹ HNMR(CDCl ₃) δ 2.87(s,3H),3.13(s,6H),3.22(s,3H),3.55(s,3H),3.81(s,3H),5.22(s,2H),6.86(s,1H),7.38-7.45(m,7H),7.51-7.53(¹ m,2H),7.67(m,2H) ¹ IR(KBr)1479,1367,1180,1151,1080,1019,966,876,798,525cm ⁻¹	7°C)Cl ₃) & 2.87(s,3H),3.13(s,6H),3.22(s,3H),3.55(s,3H), (m,2H) 9,1367,1180,1151,1080,1019,966,876,798,525cm	13(s,6H),3.22:	(s,3H),3.55(s,	3H),3.81(e,3F	1),5.22(s,2H),6	.86(s,1H),7.3	8·7.46(m,7H),	7.51-7.53(

Table 38

1.159	foam HINMR(CDCl ₃) & 2.44(8,3H),3.21(8,3H),3.54(8,3H),3.76(8,3H),3.79(8,3H),4.77(8,2H),5.24(8,2H),6.83(8,1H),6.90·7.00(m,3H), 7.30-7.48(m,5H),7.37(d,J=8.8Hz,2H),7.69(d,J=8.8Hz,2H) 1R(KR):1758,1519,1481,1365,1236,1176,1150,1079,1013,963,872,798cm ⁻¹
091-1	m.p146-147°C HINMR(DMSO-dc) & 3.31(a,3H),3.65(a,3H),4.63(a,2H),5.15(a,2H),6.40(a,1H),6.83-6.90(m,4H),7.05(d,J=8.4Hz,1H),7.32-7.52 (m,7H),8.57(a,1H),9.50(a,1H),12.0-13.9(bra,1H) HR(KBr):3422,1728,1611,1524,1489,1455,1405,1247,1142,1118,1080,1012,818,749,742,698cm ⁻¹
191-1	${}_{111} \text{NMR}(\text{CDC}(\mathbb{I}_{1}) \ \delta \ \ 1.76(8,3H), 1.79(8,3H), 2.57(8,3H), 3.21(8,3H), 3.56(8,3H), 3.77(8,3H), 3.80(8,3H), 4.64(d,J=6.5Hz,2H), 4.74(8,2H), 2.57(8,J=6.5Hz,1H), 2.87(8,J=8.7Hz,2H), 3.87(4,J=6.5Hz,1H), 6.83(8,1H), 6.88(d,J=1.5Hz,1H), 7.02.7.03(m,2H), 7.38(d,J=8.7Hz,2H), 7.69(d,J=8.7Hz,2H), 3.87(4,J=6.5Hz,1H), 6.83(8,J=1.5Hz,1H), 7.02.7.03(m,2H), 7.38(d,J=8.7Hz,2H), 7.69(d,J=8.7Hz,2H), 7$
1.162	m.p.147-149°C ¹ HNMR(DMSO-d ₆) & 1.73(s,3H),1.77(s,3H),3.30(s,3H),3.65(s,3H),4.57(d,J=6.6Hz,2H),4.60(s,2H),5.86(t,J=6.6Hz,1H),6.40(s, ¹ H),6.80(d,J=1.7Hz,1H),6.84(d,J=8.7Hz,2H),6.87(dd,J=8.7Hz,1H),6.99(d,J=8.7Hz,1H),7.43(d,J=8.7Hz,2H),8.56(s,1H),9.51(¹ B,1H),12.8(brs,1H) ¹ B,1H),12.8(brs,1H) ¹ B(KBr):3483,3376,1737,1612,1523,1489,1460,1397,1271,1231,1175,1120,1072,1012,904,820cm ⁻¹
1.163	m.p.144-145 C HINMR(CDCL ₁) δ 3.04(s,3H),3.20(s,3H),3.59(s,3H),3.75(s,3H),4.90(s,2H),5.16(s,2H),5.65(s,1H),6.67(s,1H),6.92(dd,J=2.1,8. 4Hz,1H),7.00(d,J=8.4Hz,1H),7.06(d,J=2.1Hz,1H),7.26-7.47(m,7H),7.61-7.66(m,2H) IR(KBr)3600-3200(br),1517,1449,1382,1361,1277,1235,1199,1150,1112,1079,1064,1010,997cm ⁻¹
I-164	m.p.80-83°C 'HNMR(CDCl ₃)

Table 39

	m.p.148-151 C
	$HINMR(CDCB) \delta \ 3.03(s,3H), 3.57(s,3H), 3.74(s,3H), 4.89(s,1H), 4.90(s,2H), 5.15(s,2H), 5.64(s,1H), 6.67(s,1H), 6.88\cdot6.93(m,3H), 6.10(s,2H), 6.10(s,$
69 	6.99(d,J=8.411z,111),7.06(d,J=1.811z,111),7.20-7.49(m,711)
	IR(KBr)3600-3200(br), 1609, 1590, 1519, 1477, 1459, 1381, 1253, 1216, 1116, 1111, 1077, 1066, 1012cm ⁻¹
	m.p.199°C
	111NMR(CDCl ₃) δ 3.10(8,3H),3.21(8,3H),3.44(8,3H),3.76(8,3H),5.17(8,2H),6.03(8,1H),6.44(8,1H),7.14(d,J=8.4Hz,1H),7.36-7.
1-166	49(m,8H),7.52(d,J=2.1Hz,1H),7.67-7.72(m,2H)
	IR(KBr)3600-3200(br), 1520, 1486, 1362, 1183, 1152, 1110,971cm 1
	m.p.113.115°C
	$^{\rm H}{\rm NMR}({\rm CDC}_{13}) \ \delta \ 0.76 (t, J=7.2 {\rm Hz}, 3 {\rm H}), 1.46 \cdot 1.55 (m, 2 {\rm H}), 3.11 (s, 3 {\rm H}), 3.20 (s, 1 {\rm H}), 3.63 (s, 1 {\rm H}), 3.71 (t, J=6.6 {\rm Hz}, 2 {\rm H}), 5.18 (s, 2 {\rm H}), 6.64$
1-167	(s,1H),7.11(d,J=8.7Hz,1H),7.33·7.50(m,9H),7.60·7.65(m,2H)
	IR(KBr)1517,1475,1365,1345,1293,1233,1177,1149,1109,1079,1017,956cm ⁻¹
	m.p.56-58°C
9	111NMR(CDCl ₃) δ 0.76(t, J=7.5Hz, 3H), 1.44-1.56(m, 2H), 3.61(e, 3H), 3.71(t, J=6.6Hz, 2H), 3.74(e, 3H), 4.86(e, 1H), 5.15(e, 2H), 5.63
1-168	(s,1H),6.65(s,1H),6.88-6.93(m,3H),6.98(d,J=8.4Hz,1H),7.04(d,J=1.8Hz,1H),7.37·7.50(m,7H)
	1R(KBr)3600-3200(br), 1611, 1590, 1519, 1476, 1404, 1379, 1252, 1230, 1110, 1078, 1015cm ⁻¹
	m.p.101.103°C
	$^{1}\text{HNMR(CDCl}_{3}) \delta 0.77(t, J=7.5\text{Hz}, 3\text{H}), 1.44 - 1.55(m, 2\text{H}), 1.76(9, 3\text{H}), 1.81(0, 3\text{H}), 3.20(0, 3\text{H}), 3.21(0, 3\text{H}), 3.63(0, 3\text{H}), 3.71(t, J=6.6)$
1.169	Hz, 2H), 3.75(s, 3H), 4.63(d, J=6.6Hz, 2H), 5.48-5.53(m, 1H), 6.64(s, 1H), 7.04(d, J=8.4Hz, 1H), 7.32-7.38(m, 3H), 7.42(d, J=2.1Hz, 1H)
),7.60-7.65(m,2H)
	IR(KBr)1514,1473,1370,1359,1290,1233,1174,1149,1107,970cm ⁻¹

Table 40

0.11-1	m.p.64-66°C 14NMR(CDCl ₃) & 0.77(t,J=7.5Hz,3H),1.44-1.55(m,2H),1.76(s,3H),1.81(s,3H),3.20(s,3H),3.21(s,3H),3.63(s,3H),3.71(t,J=6.6 Hz,2H),3.75(s,3H),4.63(d,J=6.6Hz,2H),5.48-5.53(m,1H),6.64(s,1H),7.04(d,J=8.4Hz,1H),7.32-7.38(m,3H),7.42(d,J=2.1Hz,1H
),7.60-7.65(m,2H) 11K(KBr)3600-2800(br),1612,1590,1520,1475,1462,1405,1381,1285,1244,1226,1110,1079,988cm ⁻¹
	m.p.148-150°C HINMR(CDCta) & 1.74(d,J=0.9Hz,3H),1.80(s,3H),2.88(s,3H),3.22(s,3H),3.23(s,6H),3.65(s,3H),3.80(s,3H),4.72(d,J=7.5Hz,2
1:1	11),5.55(m, 111),6.85(a,111),7.39&7.67(ABq,J=8.711z,411),7.40(a,211) 1R(KBr)1514,1479,1411,1366,1179,1152,1079,1022,968,875,799,525cm ⁻¹
1.172	HINMR(CDCL) 6 0.94(t,J=7.2Hz,3H),1.45(tq,J=7.2,7.2Hz,2H),2.13(m,2H),3.46(s,3H),3.74(s,3H),4.68(d,J=5.4Hz,2H),5.72(
	"HNMR(CDCI:) \$ 1.76(brd,J=6.3Hz,3H),3.46(s,3H),3.74(s,3H),4.70(d,J=5.4Hz,2H),5.77(m,2H),6.45(s,1H),6.91(d,J=8.7Hz,2
[.173	H),6.96(hrs,2H),7.07(brs,1H),7.53(d,J=8.7Hz,2H) IR(Nujol)3350,1613,1587,1523,1491,1287,1261,1238,1114,1071,1011,936,820,783cm ⁻¹
1-174	¹ HINMR(CDCl ₃) & 3.45(a,3H),3.76(a,3H),4.56(a,2H),5.55(a,1H),6.45(a,1H),6.93(d,J=8.7Hz,2H),7.01(d,J=8.4Hz,1H),7.08(dd,J=8.4.2.1Hz,1H),7.27(d,J=2.1Hz,1H),7.54(d,J=8.7Hz,2H)
1.176	'HNMR(CDCl ₃) & 3.45(a,3H),3.74(a,3H),4.82(dd,J=6.6,1.5Hz,2H),5.28(d,J=10.5Hz,1H),5.35(d,J=16.5Hz,1H),5.75(dt,J=10.8 '6.6Hz,1H),6.26(dd,J=10.5,10.5Hz,1H),6.45(a,1H),6.66(ddd,J=16.5,10.5,10.5Hz,1H),6.92(d,J=8.7Hz,2H),6.96(m,2H),7.07(br a,1H),7.53(d,J=8.7Hz,2H)
	1K(Nujoj)3399,1011,1091,1023,1469,1246,1246,1113,1011,1003,0246m

Table 41

50	45	40	. 35	30	25	20	15	10	5
.176	1HNMR(CDCL3) & 1.59(m,6H), 2.17(m,2H), 2.24, (m,2H), 2.71(s,3H), 3.21(s,3H), 3.24(s,3H), 3.56(s,3H), 3.78(s,3H), 4.65(d, J=7.2 Hz,2H), 5.43(t,J=7.2Hz,1H), 6.84(s,1H), 7.10(d,J=8.4Hz,1H), 7.34(dd,J=8.4,2.1Hz,1H), 7.38(d,J=8.7Hz,2H), 7.39(d,J=2.1Hz,1H), 7.68(d,J=8.7Hz,2H)	1.59(m,6H),2.17(Hz,1H),6.84(s,1 H)	(m,2H),2.24,(H),7.10(d,J=	m,2H),2.71(8,3 8.4Hz,1H),7.34	H),3.21(s,3H),	3.24(s,3H),3.56 Hz,1H),7.38(d,	3(s,3H),3.78(e J=8.7Hz,2H)	,3H),4.65(d,J=7,7.39(d,J=2.1Hz	2.7
-177	m.p.177-178°C HINMR(CDCE) δ 2.31(t,J=5.7Hz,2H),2.39(t,J=5.7Hz,2H),2.76(s,3H),3.21(s,3H),3.24(s,3H),3.56(s,3H),3.70(t,J=5.7Hz,2H),3.73(t,J=5.7Hz,2H),3.73(t,J=5.7Hz,2H),3.78(s,3H),4.67(d,J=6.6Hz,2H),5.57(t,J=6.6Hz,1H),6.84(s,1H),7.09(d,J=8.4Hz,1H),7.35(dd,J=8.4,2.1Hz,1H),7.38(d,J=8.7Hz,2H),7.39(d,J=2.1Hz,1H),7.67(d,J=8.7Hz,2H),7.38(d,J=8.7Hz,2H),7.39(d,J=2.1Hz,1H),7.67(d,J=8.7Hz,2H),7.38(d,J=8.7Hz,2H),7.39(d,J=2.1Hz,1H),7.67(d,J=8.7Hz,2H)	tC Cl ₃) & 2.31(t,J=5.711z,211),2.39(t,J=5.711z,211),2.76(s,3H),3.21(s,3H),3.24(s,3H),3.56(s,3H),3.70(t,J=5.7Hz,2H),3 [z,211),3.78(s,3H),4.67(d,J=6.6Hz,2H),5.57(t,J=6.6Hz,1H),6.84(s,1H),7.09(d,J=8.4Hz,1H),7.35(dd,J=8.4,2.1Hz,1 -8.711z,211),7.39(d,J=2.111z,111),7.67(d,J=8.711z,211) 0,1519,1481,1362,1178,1152,1079,818cm	1),2.39(t,J=5 ,J=6.6Hz,2H Hz,1H),7.67(.7Hz,2H),2.76(a),5.57(t,J=6.6H d,J=8.7Hz,2H) 8cm	z,1H),6.84(s,1	H),3.24(s,3H),3 H),7.09(d,J=8.	.56(8,3H),3.7 4Hz,1H),7.35	0(t, J=5.7Hz,2H (dd, J=8.4,2.1Hz	2,1
-178	111NMR(CDCB) 5 1.04(t,J=7.5Hz,3H), 1.05(t,J=7.5Hz,3H), 2.12(q,J=7.5Hz,2H), 2.16(q,J=7.5Hz,2H), 2.71(e,3H), 3.21(e,3H), 3.24(e,3H), 3.56(e,3H), 3.78(e,3H), 4.67(d,J=6.6Hz,2H), 5.45(t,J=6.6Hz,1H), 6.84(e,1H), 7.11(d,J=8.4Hz,1H), 7.35(dd,J=8.4,2.4Hz,1H), 7.39(d,J=8.7Hz,2H), 7.38(d,J=8.7Hz,2H), 7.38(d,J=8.7Hz,2Hz,2H), 7.38(d,J=8.7Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2	3.78(s,3H),4.67(2.2H),7.39(d,J=2.	H), 1.05(t,J=7 (d,J=6.6Hz,2 4Hz,1H),7.6	7.5Hz,3H),2.12(H),5.45(t,J=6.6 8(d,J=8.7Hz,2F	q,J=7.511z,2H Hz,1H),6.84(s !)),2.16(q,J=7.5l ,1H),7.11(d,J=	1z,2H),2.71(8	,3H),3.21(8,3H) 36(dd,J=8.4,2.4]	,3.
.179	1HNMR(CDCR), 6 1.05(t,J=7.5Hz,3H),1.76(s,3H),2.10(q,J=7.5Hz,2H),2.71(s,3H),3.21(s,3H),3.24(s,3H),3.56(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),3.78(s,3H),7.39(s,3Hz,1H),7.38(d,J=8.7Hz,1H),7.38(d,J=8.7Hz,2H),7.39(s,J=8.7Hz,2H),7.39(s,J=8.7Hz,2H),7.39(s,J=8.7Hz,2H),7.39(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.39(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.39(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2H),7.38(s,J=8.7Hz,2Hz,2H),7.38(s,J=8.7Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2	(hi) δ 1.05(t,J=7.5Hz,3H),1.76(e,3H),2.10(q,J=7.5Hz,2H),2.71(e,3H),3.21(e,3H),3.24(e,3H),3.56(e,3H),3.78(e,3H),9.78(e,3H),5.48(t,J=6.9Hz,1H),6.84(e,1H),7.10(d,J=8.4Hz,1H),7.34(dd,J=8.4,2.1Hz,1H),7.38(d,J=8.7Hz,2H),7.39(H),7.68(d,J=8.7Hz,2H)	4), 1.76(8,3H) ,,1H),6.84(8,1	,2.10(q,J=7.5H H),7.10(d,J=8.	z,2H),2.71(6,3 4Hz,1H),7.34(H),3.21(8,3H),3 dd,J=8.4,2.1H	3.24(a,3H),3.5 2,1H),7.38(d,	,6(8,3H),3.78(8,3]=8.7Hz,2H),7.3	H 66
180	¹ HNMR(CDCl ₃) δ 1.76(s,3H),1.80(s,6H),2.72(s,3H),3.21(s,3H),3.21(s,3H),3.56(e,3H),3.78(s,3H),4.61(s,2H),6.84(s,1H),7.10(d ₄ ,J=8.4Hz,1H),7.34(dd ₄ ,J=8.4,2.1Hz,1H),7.38(d ₄ ,J=8.7Hz,2H),7.38(d ₄ ,J=8.7Hz,2Hz,2H),7.38(d ₄ ,J=8.7Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2	(Cl ₃) δ 1.76(9,3H), 1.80(9,6H), 2.72(9,3H), 3.21(9,3H), 3.21(9,3H), 3.56(9,3H), 3.78(9,3H), 4.61(H), 7.34(dd, J=8.4,2.1Hz,1H), 7.38(d, J=8.7Hz,2H), 7.39(d, J=2.1Hz,1H), 7.68(d, J=8.7Hz,2H)	,6H),2.72(s,3 1H),7.38(d,J	(H),3.21(6,3H),3 =8.7Hz,2H),7.3	1.21(s,3H),3.56 9(d,J=2.1Hz,1	3(a,3H),3.78(a,4 H),7.68(d,J=8.	3H),4.61(8,2H 7Hz,2H)),6.84(s,1H),7.1	ŏ
.181	m.p.157-158°C !HNMR(CDCl ₃)	.55-1.65(m,6H), 4Hz,2H),6.96(b) 854,1609,1567,1	2.18(m,2H),5 r.s,2H),7.06(t 1623,1490,14	2.23(m,2H),3.46 or.s,1H),7.52(d, 62,1405,1254,1	(8,3H),3.74(8, J=8.4Hz,2H) 221,1198,111	3H),4.63d,J=7.	2Hz,2H),5.47	(t,J=7.2Hz,1H)	.9

Table 42

	m.p.219-221°C
-	$\mathtt{HINMR}(DMSO.d_6) \ \delta \ 2.22(t, \mathtt{J=5.4Hz, 2H}), 2.32(t, \mathtt{J=5.4Hz, 2H}), 3.30(s, \mathtt{3H}), 3.56(t, \mathtt{J=5.4Hz, 2H}), 3.61(t, \mathtt{J=5.4Hz, 2H}), 3.64(s, \mathtt{3H}), 3.64(s, 3H$
1.182	4.59(d, J = 6.611z, 211), 5.54(t, J = 6.6Hz, 111), 6.39(s, 111), 6.64(dd, J = 8.4, 2.111z, 111), 6.73(d, J = 2.111z, 111), 6.84(d, J = 8.7Hz, 211), 6.89(d, J = 6.611z, 211), 6.84(d, J = 6.811z, 211), 6.89(d, J = 6.811z, 211)
	,J=8.4Hz, 1H),7.43(d,J=8.4Hz,2H)
	1R(KBr)3392, 2948, 1609, 1586, 1522, 1492, 1271, 1239, 1219, 1118, 1076, 1007, 818cm ⁻¹
	m.p.149-150°C
	$\text{HINMIR}(C(1)(2)_3) \delta = 1.03(4, J = 7.511z, 311), 1.07(4, J = 7.511z, 311), 2.13(q, J = 7.511z, 211), 2.16(q, J = 7.511z, 211), 3.46(s, 311), 3.76(s, 311), 4.$
1-183	64(d,J=6.6Hz,2H),5.48(t,J=6.6Hz,1H),6.45(s,1H),6.92(d,J=8.7Hz,2H),6.97(dd,J=7.8,1.5Hz,1H),6.97(d,J=7.8Hz,1H),7.06(d,
	J=1.5H2,1H1,7.52(d,J=8.7Hz,2H)
	IR(KBr)3398,2963,2934,1671,1610,1523,1493,1465,1407,1259,1224,1118,1071,813cm ⁻¹
	m.p.217.218U
•	'HINMR(CDCL:)δ 3.86(8,3H),5.16(8,2H),5.72(8,1H),6.97-7.01(m,3H),7.12(dd,J=2.4,8.4Hz,1H),7.26(d,J=2.4Hz,1H),7.34-7.47
1.184	(m,5H),7.54-7.58(m,2H),7.60(s,4H)
	1R(KBr)3600-3200(br), 1605, 1590, 1493, 1298, 1282, 1253, 1206, 1183, 1022cm ⁻¹
	111NMR(CDCE) 5 1.21(t,J=6.9Hz,3H), 1.77(s,3H), 1.82(s,3H), 2.38·2.46(m,2H), 2.72·2.84(m,2H), 3.18(s,3H), 3.21(s,3H), 3.35(s,
9	311),3.70(s,3H),4.06(q,J=6.9Hz,2H),4.63(d,J=6.6Hz,2H),5.52(t,J=6.6Hz,1H),6.75(s,1H),7.07(d,J=8.4Hz,1H),7.13(d.d,J=8.4&
1-180	2.1Hz, 1H), 7.21(d, J=2.1Hz, 1H), 7.37(d, J=9.0Hz, 2H), 7.69(d, J=9.0Hz, 2H)
	IR(KBr)1727,1517,1469,1364,1291,1234,1179,1152,1118,1080,1003cm ⁻¹
	$!!!NMR(CI)CI:) \delta - 1.76(8,3H), 1.82(8,3H), 2.42-2.53(m,2H), 2.72-2.86(m,2H), 3.35(8,3H), 3.69(8,3H), 4.61(d,J=6.6Hz,2H), 5.53(t,J) + 1.00(8,3H), 1.0$
701.1	J=6.6Hz, 1H), 5.71(s, 1H), 6.68(d.d, J=8.4&2.1Hz, 1H), 6.76(s, 1H), 6.81(d, J=2.1Hz, 1H), 6.91(d, J=8.4Hz, 2H), 6.92(d, J=8.4Hz, 1H),
1-180	7.52(d,J=8.4Hz,2H)
	IR(KBr)3419,1707,1612,1518,1472,1390,1225,1078cm ⁻¹

Table 43

1.187	¹ HNMR(CDCl ₃) δ 2.55(s,3H),3.54(s,3H),3.78(s,3H),5.18(s,1H),6.85(s,1H),6.91(d.d,J=8.4&2.1Hz,1H),7.03(d,J=8.4Hz,1H),7.00(d,J=2.1Hz,1H),7.33.7.48(m,5H),7.71(d,J=8.4Hz,2H),7.72(d,J=8.4Hz,2H) 1R(KBr)3442,1617,1617,1485,1485,1394,1357,1331,1171,1124,1077,1067,1016cm ⁻¹
1.188	¹ HINMR(CDCl ₃) δ 2.68(s,3H),3.13(s,3H),3.54(s,3H),5.79(s,3H),5.19(s,2H),6.86(s,1H),7.16(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.72(d,J=8.7Hz,2H),7.76(d,J=8.7Hz,2H) 72(d,J=8.7Hz,2H),7.76(d,J=8.7Hz,2H) 11R(KBr)1614,1513,1482,1366,1324,1177,1120,1079,1065,1016cm ¹
1.189	**IINMR(CDX3.) δ 2.68(s,3H),3.13(s,3H),3.79(s,3H),5.19(s,2H),6.86(s,1H),7.16(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.77(d,J=8.7Hz,2H),7.76(d,J=8.7Hz,2H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,2H),7.76(d,J=8.7Hz,2H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,2H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,2H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,2H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.31-7.50(m,7H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),7.71(d,J=8.7Hz,1H),
-190	¹ HNMR(CDCl ₃) δ 1.76(s,3H),1.82(s,3H),3.46(s,3H),3.76(s,3H),4.62(d,J=8.4Hz,2H),5.53(t,J=8.4Hz,1H),5.71(s,1H),5.85(s,1H),6.46(s,1H),6.94(d,d,J=8.1&1.3Hz,1H),6.98(d,J=8.1Hz,1H),7.05(d,J=1.8Hz,1H),7.71(d,J=8.1Hz,2H),7.77(d,J=8.1Hz,2H) IR(KBr)3552,3505,3466,1613,1509,1487,1397,1324,1288,1245,1163,1110,1065cm ⁻¹
1-191	¹ HNMR(CDCh ₃) δ 3.02(s,6H),3.48(s,3H),3.76(s,3H),5.15(s,2H),5.67(s,1H),5.95(s,1H),6.47(s,1H),6.81(d,J=8.7Hz,2H),6.96(d.d,J=8.4Hz,1H),7.10(d,J=2.1Hz,1H),7.31-7.49(m,5H),7.55(d,J=8.7Hz,2H) IR(KB ₁)3543,3500,1605,1526,1486,1459,1245,1198,1110,1070,999cm ⁻¹
-192	mp122-124°C IIINMR(CDCh) & 2.70(brs,3H),3.55-3.60(br,2H),3.60(s,3H),3.75(s,3H),3.81-3.83(m,2H),3.87(s,3H),5.15(s,2H),5.68(s,1H),6. 69(s,1H),6.94(dd,J=2.1,8.4Hz,1H),6.97-7.03(m,3H),7.07(d,J=1.8Hz,1H),7.38-7.48(m,5H),7.51-7.56(m,2H) IR(KBr)3600-2800(br),1607,1597,1550,1518,1477,1462,1452,1392,1289,1248,1228,1175,1122,1096,1084,1015cm ⁻¹

· Table 44

5

	m.p. 160-163°C HINMR(CDCE) § 3.60(s,3H),3.60-3.64(br,2H),3.76(s,3H),3.77-3.80(m,2H),5.15(s,2H),5.69(s,1H),5.88(s,1H),6.69(s,1H),6.90-
	6.94(m,311),7.02(d,J=8.411z,1H),7.08(d,J=2.1Hz,1H),7.38-7.51(m,7H)
	IR(KBr)3600-3200(br), 1613, 1588, 1519, 1477, 1462, 1397, 1256, 1189, 1117, 1078, 10) 1cm - 1
	$^{1}\text{IINMIK(CI)CL}_{3}) \ \ 3.02(\text{s,GH}), 3.11(\text{s,3H}), 3.50(\text{s,3H}), 3.72(\text{s,3H}), 4.43(\text{brs,1H}), 4.58(\text{brs,1H}), 5.18(\text{s,2H}), 6.82(\text{d,J}=8.711\text{z,2H}), 6.9 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
1.194	2(s,111),7.16(d,J=9.3Hz,111),7.31-7.51(m,711),7.55(d,J=8.7Hz,211)
	IR(KBr)3432, 1611, 1526, 1476, 1366, 1291, 1232, 1186, 1117, 1079, 1012cm
	m.p.157-158°C
	"HNMR(CDCL3) § 3.10(8,3H),3.21(8,3H),3.56(8,3H),3.69(8,3H),3.76(8,3H),4.47(8,2H),5.17(8,2H),6.68(8,1H),7.12(d,J=8.2Hz,
1.190	1H),7.34-7.50(m,9H),7.63(d,J=8.6Hz,2H)
	IR(KBr):1748,1517,1476,1366,1232,1150,1114,968,873,812,791,750,707cm ⁻¹
	m.p.189.191°C(dec)
201	1HNMR(DMSO-d ₀) & 3.45(9,3H),3.67(9,3H),4.25(9,2H),5.12(9,2H),6.66(dd,J=8.4,2.0Hz,1H),6.69(9,1H),6.77(d,J=2.0Hz,1H),6
1-130	.80(d,J=8.6Hz,2H),6.98(d,J=8.4Hz,1H),7.33.7.54(m,7H),9.01(s,1H),9.54(brs,1H)
	IR(KBr):3422,3246,1733,1611,1596,1522,1478,1400,1262,1248,1222,1207,1130,1084,1011,836,781,744,699cm ⁻¹
	m.p.151-152°C
	1HNMR(CDCl ₃) δ 1.76(9,3H), 1.81(9,3H), 3.20(9,3H), 3.21(9,3H), 3.56(9,3H), 3.70(8,3H), 3.75(9,3H), 4.47(9,2H), 4.63(4,J=6.9Hz,
1.197	2H), 5.51(t, J=6.9Hz, 1H), 6.68(s, 1H), 7.05(d, J=8.4Hz, 1H), 7.36(dd, J=8.4, 2.1Hz, 1H), 7.36(d, J=8.9Hz, 2H), 7.41(d, J=2.1Hz, 1H), 7.
	63(d,J=8.9Hz,2H)
	IR(KBr):1751,1517,1475,1366,1234,1150,1113,968,872,812,707cm ⁻¹

Table 45

50	45	40	35	30	25	20	15	10	5
				0					
	m.p.155-156°C								
	HINMIR(DMSO-da) & 1.72(s,3H), 1.76(s,3H), 3.42(s,3H), 3.67(s,3H), 4.25(s,2H), 4.54(d,J=6.8Hz,2H), 5.49(t,J=6.8Hz,1H), 6.65(d	la) δ 1.72(s,3F	I), I.76(s,3H),3.	42(s,3H),3.67	(s,3H),4.25(s,2	!H),4.54(d,J=(3.8112,211),5.49	(t,J=6.8Hz,1H)	p)99.9'
1.198	d,J=8.4,1.9Hz,1H	l),6.69(s,111),6	1.73(d,J=1.9Hz,	1H),6.84(d,J=	:8.4Hz,2H),7.3	6(d,J=8.4Hz,	H),7.41(d,J=ε	117,111),6.69(s,111),6.73(d,J=1.911z,114),6.84(d,J=8.411z,214),7.36(d,J=8.41z,114),7.41(d,J=8.41z,214),8.85(s,114),9	8,1H),9
	,55(s,1H),11.2-13.	1.2-13.6(brs, 1H)							
	1R(KBr):3411,324	43,1733,1611,	11,3243,1733,1611,1594,1522,1477,1398,1247,1207,1126,1083,1015,835,788cm ⁻¹	7,1398,1247,1	207,1126,108	3,1015,835,78	8cm 1		
	HNMR(CDCl3) &	3 2.68(s,3H),3	3.13(s,311),3.55	(s,3H),3.80(s,	3H),5.19(8,2H)	7,6.88(s,1H),7	.16(d,J=8.7Hz	DCl3) & 2.68(s,3H),3.13(s,3H),3.55(s,3H),3.80(s,3H),5.19(s,2H),6.88(s,1H),7.16(d,J=8.7Hz,1H),7.34(d,J=2.1Hz,1	. 1Hz, 1
1.199	H), 7.36-7.50(m, 6H), 7.81(d, J=8.4Hz, 2H), 7.98(d, J=8.4Hz, 2H)	H), 7.81(d, J=8.	4Hz,2H),7.98(c	1,J=8.4112,211	•				
	1R(KBr)1698,1602,1481,1351,1232,1182,1079cm-1	2,1481,1351,1	232,1182,1079	cm ⁻¹					
	"HNMR(CDCl ₃) δ 2.42(s, 3H), 2.71(s, 3H), 3.03(s, 3H), 3.21(s, 3H), 3.56(s, 3H), 3.79(s, 3H), 5.17(s, 2H), 6.84(s, 1H), 7.19(d, J=8.4Hz,	2.42(s,3H),2	.71(s,3H),3.03((s,3II),3.21(s,	3H),3.56(s,3H)	,3.79(s,3H),5.	17(s,2H),6.84(=, 1H), 7.19(d, J=	8.4Hz,
0006	1H),7.22-7.30(m,3H),7.37(dd,J=8.4,2.1Hz,1H),7.38(d,J=8.7Hz,2H),7.41(d,J=2.1Hz,1H),7.41-7.45(m,1H),7.68(d,J=8.7Hz,2H	3H),7.37(dd,J=	=8.4,2.111z,1H)	,7.38(d,J=8.7	Hz,211),7.41(d,	J=2.1Hz,1H),	7.41-7.45(m,1	H),7.68(d,J=8.7	Hz,2H
3	_								
Ì	IR(Nujol)1607,15	19,1480,1177,	607,1519,1480,1177,1151,1079,970,875,798cm ⁻¹	,875,798cm ⁻¹					
	1HNMR(CDCl ₃) δ 2.38(9,3H),2.67(8,3H),3.14(8,3H),3.21(8,3H),3.56(8,3H),3.78(8,3H),5.15(8,2H),6.84(9,1H),7.14(d,J=8.4Hz,	2.38(s,3H),2	.67(s,3H),3.14(s,3H),3.21(s,5	H),3.56(8,3H)	,3.78(s,3H),5.	15(s,2H),6.84(9,1H),7.14(d,J=	8.4Hz,
1.901	111),7.17(hrd,J=7.511z,111),7.23-7.30(m,311),7.34(dd,J=8.4,1.811z,1H),7.38(d,J=8.7Hz,2H),7.41(d,J=1.8Hz,1H),7.68(d,J=8.7	.6Hz, 1H),7.23	-7.30(m,3H),7.	34(dd,J=8.4,1	.8Hz, 1H),7.38	(d,J=8.7Hz,2	H), $7.41(d, J=1$.	8Hz, 111), 7.68(d	J=8.7
5	Hz,2H)								
	IR(Nujol)1606,15	19,1482,1180,	$506,1519,1482,1180,1150,1078,1011,979,876,790cm^{-1}$	1,979,876,790	cm ⁻¹				i
	¹ HNMR(CDCl ₃) δ 2.30(8,3H),2.38(8,6H),2.74(8,3H),2.94(8,3H),3.21(8,3H),3.57(8,3H),3.79(8,3H),5.13(8,2H),6.85(8,1H),6.91(2.30(s,3H),2	.38(s,6H),2.74(e,3H),2.94(e,3	H),3.21(6,3H),	,3.57(8,3H),3.	79(s,3H),5.13(9,2H),6.85(8,1H),6.91(
1.202	brs,2H),7.37(d,J=	8.7Hz,2H),7.4	0(brs,2H),7.41((dd,J=8.4,1.8F	Iz, 1H), 7.69(d,	J=8.7Hz,2H)			
	1R(CHCl ₃)1610,1518,1477,1370,1177,1149,1082,970,873cm ⁻¹	518,1477,1370	1,1177,1149,108	32,970,873cm					
	1HNMR(CDCl3) 8	2.34(s,6H),2	.66(s,3H),3.15(8,3H),3.21(8,3	H),3.56(s,3H),	3.78(s,3H),5.1	12(s,2H),6.84(e	2.34 (s, 6H), 2.66 (s, 3H), 3.15 (s, 3H), 3.21 (s, 3H), 3.56 (s, 3H), 3.78 (s, 3H), 5.12 (s, 2H), 6.84 (s, 1H), 6.99 (brs, 1H), 7.00 (brs, 1	H),7.0
1.203	6(brs,2H),7.14(d,J=8.4Hz,1H),7.33(dd,J=8.4,2.1Hz,1H),7.38(d,J=8.7Hz,2H),7.40(d,J=2.1Hz,1H),7.68(d,J=8.7Hz,2H)	I=8.4Hz,1H),7	.33(dd,J=8.4,2.	1Hz, 1H), 7.38	(d,J=8.7Hz,2H	[),7.40(d,J=2.]	(Hz, 1H), 7.68(e	1,J=8.7Hz,2H)	
	IR(Nujol)1607,1519,1480,1178,1152,1097,1014,969,876,824,797cm ⁻¹	19,1480,1178,	1152,1097,101	4,969,876,824	.797cm ⁻¹				

Table 46

<u></u>	111111111111111111111111111111111111
700	111),7.34(dd,,1=8.4,2.111z,111),7.38(d,,1=8.711z,211),7.42(d,,1=2.111z,111),7.55(d,,1=8.411z,2H),7.68(d,,1=8.7Hz,2H),8.09(d,,1=8.4
07:1	Hz,2H)
	IR(Nujol)1719,1610,1519,1480,1177,1151,1119,1080,1016,969,875,798cm ¹
	m.p.153-157°C
	411NMR(CDCB) & 2.70(8,311),3.16(8,311),3.21(8,311),3.56(8,311),3.78(8,311),5.13(8,211),6.41(dd,J=3.3,2.0Hz,1H),6.49(d,J=3.3
1.205	11z, 111), 6.84(s, 111), 7.20(d, J=8.711z, 111), 7.37(dd, J=8.7,2.111z, 111), 7.38(d, J=8.7Hz, 211), 7.41(d, J=2.1Hz, 1H), 7.46(d, J=2.0Hz, 1
	H),7.68(d,J=8.7Hz,2H)
	IR(Nujol)1605,1518,1482,1375,1361,1180,1150,1079,1013,977,876,814,800cm ⁻¹
	HINMR(CDCt3) & 2.41(8,311),3.46(8,311),3.75(8,311),5.13(8,211),6.45(8,111),6.92(d,J=8.7Hz,211),6.99(dd,J=8.4,2.111z,111),7.07
1.206	1.206 (d,J=8.4Hz,1H),7.09(d,J=2.1Hz,1H),7.22.7.34(m,3H),7.40(brd,J=7.8Hz,1H),7.53(d,J=8.7Hz,2H)
	IR(Nujol)3471,3436,3339,1612,1581,1523,1489,1266,1245,1228,1185,1110,1070,1011,998,945,823,781cm ⁻¹
	111NMR(CDCl3) & 2.40(4,311),3.45(8,311),3.75(8,311),5.11(8,211),6.45(8,111),6.91(d,J=8.711z,211),6.95(dd,J=8.4,1.811z,111),7.01
1.207	1.207 (d,J=8.411z,111),7.09(d,J=1.811z,111),7.19(brd,J=7.511z,111),7.22·7.34(m,3H),7.53(d,J=8.7Hz,211)
	IR(Nujol)3410,1611,1589,1523,1489,1246,1225,1114,1071,1011,939,824,814,778cm ⁻¹
	m.p.230.236°C
-	111NMR(1)MSO-da) & 2.25(a,311),2.35(a,611),3.31(a,311),3.65(a,311),5.00(a,211),6.39(a,111),6.69(dd,J=8.4,1.811z,111),6.76(d,J=1
802-1	.811z,111),6.84(d,J=8.7Hz,111),6.90(brs,2H),7.06(d,J=8.4Hz,3H),7.44(d,J=8.7Hz,2H)
	IR(Nujol)3475,3361,1609,1579,1621,1260,1244,1110,1071,1012,988,822,782cm ⁻¹ ,
	1HNMR(CDCl ₃) & 2.35(8,6H),3.45(8,3H),3.75(8,3H),5.07(8,2H),6.45(8,1H),6.91(d,J=8.7Hz,2H),6.95(dd,J=8.4,1.8Hz,1H),7.01
1.209	(brs, 1H), 7.02(d, J=8.4Hz, 1H), 7.06(brs, 2H), 7.08(d, J=1.8Hz, 1H), 7.63(d, J=8.7Hz, 2H)
_	IR(Nujol)3410,1610,1588,1523,1489,1248,1225,1114,1071,1011,940,825,808,cm ⁻¹

Table 47

55

50	45	40	35	30	25	20	15	-10	5
210		(8,3H),3.67(8, H),7.45(d,J=8, 12,1591,1523,	3H),5.25(s,2 7Hz,2H),7.6 1488,1249,1	(H),6.43(s,11H) 50(d,J=8.4Hz, 113,1071,1013	7,6.77(dd,J=8. 2H),8.04(d,J=3,940,826,81	4,2.1Hz,1H),6. =8.4Hz,2H) 2,765cm ¹	84(d,J=8.7Hz	,2H),6.89(d,J=2.	Ξ
211	"HINMR(CDCB) & 3.45(s,3H),3.74(s,3H),5.09(s,3H),6.41(dd,J=3.3,1.8Hz,1H),6.45(s,1H),6.47(d,J=3.3Hz,1H),6.92(d,J=8.7Hz,2H),6.97(dd,J=8.4,2.1Hz,1H),7.07(d,J=2.1Hz,1H),7.08(d,J=8.4Hz,1H),7.48(dd,J=1.8,1.0Hz,1H),7.54(d,J=8.7Hz,2H) [R(Nujol)3410,1612,1589,1523,1489,1226,1113,1071,1011,939,815,747cm ⁻¹]	s,311),3.74(s,3 lz,1H),7.07(d, 39,1523,1489,	H),5.09(s,31 J=2.1Hz,1H) 1248,1226,1	f),6.41(dd,J=; 7.08(d,J=8.4) 113,1071,101	3.3, 1.8H2, 1H) Hz, 1H), 7.48(1,939,815,747	,6.45(s,111),6.4 dd,J=1.8,1.0H2 7cm ⁻¹	7(d,J=3.3Hz,	1H), 6.92(d, J=8.7 =8.7Hz, 2H)	12
212	m.p. 156-158°C. HINMR(CDCL ₃) & 1.06(t,J=7.4Hz,3H),1.75(s,3H),2.10(q,J=7.4Hz,2H),3.46(s,3H),3.75(s,3H),4.64(d,J=7.0Hz,2H),5.52(t,J=7.0Hz,1H),6.45(s,1H),6.92(d,J=8.6Hz,2H),6.96(br.s,2H),7.06(br.s,1H),7.53(d,J=8.6Hz,2H) IR(KBr)3392,2960,2934,1610,1583,1568,1523,1492,1465,1406,1259,1241,1224,1198,1118,1071,824,812cm ⁻¹	(t,J=7.4Hz,3H 2(d,J=8.6Hz,2l 1,1610,1583,15),1.75(s,3H) H),6.96(br.s, 68,1523,149	,2.10(q,J=7.4 ,211),7.06(br.s)2,1465,1406,	Hz,2H),3.46(ŧ ,1H),7.53(d,J	C Jla) & 1.06(t,J=7.4Hz,3H),1.75(s,3H),2.10(q,J=7.4Hz,2H),3.46(s,3H),3.75(s,3H),4.64(d,J=7.0Hz,2 (s,1H),6.92(d,J=8.6Hz,2H),6.96(br.s,2H),7.06(br.s,1H),7.53(d,J=8.6Hz,2H) ,2960,2934,1610,1583,1568,1523,1492,1465,1406,1259,1241,1224,1198,1118,1071,824,812cm ⁻¹),4.64(d,J=7.0	.Hz,2H),5.52(t,J=	7.
813	m.p.175-177°C 'HNMR(CDCl ₃) & 1.77(s,3H),1.80(s,6H),3.46(s,3H),3.75(s,3H),4.59(s,2H),6.45(s,1H),6.92(d,J=8.7Hz,2H),6.96(br.s,2H),7.06(br.s,1H),7.53(d,J=8.7Hz,2H) IR(KBr)3449,2929,1612,1581,1523,1489,1403,1262,1243,1228,1113,1070,823,807cm ⁻¹	8,3H),1.80(8,6l ,2H) ,1581,1523,14	H),3.46(e,3H	(),3.75(s,3H),4	1.59(s,2H),6.4	i5(s,1H),6.92(d _.	,J=8.7Hz,2H),	6.96(br.s,2H),7.C)9
214		(1,1) δ 1.6G(tt,J=6.6,6.6Hz,2H),1.74(tt,J=6.6,6.6Hz,2) 3H),3.5G(8,3H),3.78(8,3H),4.62(d,J=6.9Hz,2H),5.6O(1 -8.7Hz,2H),7.38(d,J=2.1Hz,1H),7.67(d,J=8.7Hz,2H) 1610,1518,1418,1365,1177,1151,1079,847,818cm	,2H),1.74(tt),4.62(d,J=6 lz,1H),7.67(,J=6.6,6.6Hz, .9Hz,2H),5.60 (d,J=8.7Hz,2H	2H),2.32(t,J= (m,1H),6.84([)	-6.6Hz,2H),2.3.	1(t,J=6.6Hz,2 -8.7Hz,1H),7.	H),2.71(6,3H),3.2 34(dd,J=8.7,2.1H	1(z,
215	1HNMR(CDC 8,1H),6.84(s, 1R(KBr)2936	1.72(m,4H),2.(J=8.4Hz,1H),7 ,1481,1365,11)5-2.13(m,4) '.34(dd,J=8. 77,1151,107	H),2.70(s,3H), 4,2.1Hz,1H),7 19,818cm ⁻¹	3.21(8,3H),3. 7.38(d,J=8.7H	23(s,3H),3.56(t z,2H),7.38(d,J	,3H),3.78(8,3] =2.1Hz,1H),7.	[]3) & 1.57-1.72(m,4H),2.05-2.13(m,4H),2.70(s,3H),3.21(s,3H),3.23(s,3H),3.56(s,3H),3.78(s,3H),4.48(s,2H),5.86 []4),7.09(d,J=8.4Hz,1H),7.34(dd,J=8.4,2.1Hz,1H),7.38(d,J=8.7Hz,2H),7.38(d,J=2.1Hz,1H),7.67(d,J=8.7Hz,2H),1610,1618,1481,1365,1177,1161,1079,818cm ⁻¹) ()

· Table 48

! NMR(CDCL;) & 1.74(d,J=6.6Hz,3H),2.54(d,J=2.1Hz,1H),2.70(s,3H),3.21(s,3H),3.24(s,3H),3.56(s,3H),3.78(s,3H),5.00(ad,J=6.6.6.2.1Hz,1H),6.84(s,1H),7.28(d,J=8.7Hz,1H),7.38(d,J=8.7Hz,2H),7.38(d,J=8.7Hz,2H),7.41(d,J=2.1Hz,1H),7.68(d,J=6.6.2.1Hz,1H),6.84(s,1H),7.41(d,J=2.1Hz,1H),7.68(d,J=6.6.2.1Hz,1H),7.84(s,J=6.6.2.1Hz,JH),7.84(s,J=6.6.2.1Hz,JH),7.84(s,J=6.6.2.1Hz,JH),7.84(s,J=6.6.6.2.1Hz,JH),7.84(s,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.1Hz,JH),7.85(d,J=6.6.6.2.2.1Hz,JH),7.85(d,J=6.6.6.2.2.1Hz,JH),7.85(d,J=6.6.6.2.2.1Hz,JH),7.85(d,J=6.6.2.2.2.1Hz,JH),7.85(d,J=6.6.2.2.2.1Hz,JH),7.85(d,J=6.6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2
8.7112,211)
HR(KBr)3282,3023,2940,1609,1519,1481,1365,1177,1151,1079,970,815cm 1
m.p.80-85°C
111111111111111111111111111111111111
d,J=8.6Hz, H1),6.95(br.s,2H),7.06(br.s, H1),7.68(d,J=8.6Hz,2H)
IR(KBr)3282,3023,2940,1609,1519,1481,1365,1177,1151,1079,970,815cm
foam HINMR(CDCl3) & 3.45(s,3H),3.77(s,3H),5.16(s,2H),5.69(brs,1H),5.86(s,1H),6.47(e,1H),6.95(dd,J=2.1,8.4Hz,1H),7.04(d,J=8.
4Hz, HI), 7.08(d, J=2. HIz, 1H), 7.34-7.65(m, 7H), 7.83-7.92(m, 2H)
IR(CITCH) 0000, 0044, 1014, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 10
toam HINMR(CDCl3) & 1.69(4,311), 1.74(4,311), 2.51-2.59(m,211), 2.74(4,311), 3.22(4,311), 3.66(4,311), 3.79(4,311), 4.07(t,J=6.6Hz,2H), 5.
21(m,111),6.85(s,111),7.08(d,J=8.7Hz,1H),7.35(dd,J=2.1,8.7Hz,1H),7.39(d,J=2.1Hz,1H),7.55-7.69(m,2H),7.81-7.87(m,2H)
IR(CHCl ₁)3024,1609,1519,1481,1467,1396,1369,1321,1272,1179,1122,1082,1015cm ⁻¹
m.p.124-126°C
1 HINMR(CDCl ₃) δ 1.69(s,3H), 1.76(s,3H), 2.50-2.57(m,2H), 3.46(s,3H), 3.76(s,3H), 4.07(t, J=6.9Hz, 2H), 5.22(m, 1H), 5.69(brs, 1H), 2.50 (m, 2H), 3.69(brs, 2H), 4.07(t, J=6.9Hz, 2H), 5.22(m, 1H), 5.69(brs, 2H), 5.69(brs, 2H), 4.07(t, J=6.9Hz, 2H), 5.22(m, 2H), 5.69(brs, 2H), 5.69(
),5.84(8,1H),6.46(8,1H),6.93-7.05(m,3H),7.55-7.65(m,2H),7.82-7.91(m,2H).
IR(KBr)3406,2935,1587,1519,1501,1488,1459,1359,1323,1304,1291,1274,1223,1170,1126,1113,1075,1018cm-'

Table 49

• 35

122.1	m.p.187-189°C HINMR(CDCla) & 2.33(8,3H),2.69(8,3H),3.21(8,3H),3.24(8,3H),3.55(8,3H),3.77(8,3H),4.17(8,2H),6.84(8,1H),7.12&7.25(ABq, J=8.7Hz,4H),7.31(dd,J=8.1Hz,J=1.5Hz,1H),7.38&7.67(ABq,J=8.7Hz,4H),7.42(d,J=8.1Hz,1H),7.46(d,J=1.5Hz,1H) HR(KBr)1512,1474,1417,1391,1356,1343,1177,1149,1082,1054,1013,976,961,939,867,854,844,820,812,799,523cm ⁻¹
1-222	m.p.107-112°C IIINMR(CDCI ₃) & 2.73(s,3H),3.22(s,3H),3.28(s,3H),3.55(s,3H),3.77(s,3H),4.34(s,2H),6.84(s,1H),7.19(m,1H),7.30(dd,J=8.1H z,J=1.8Hz,1H),7.34-7.41(m,3H),7.46(d,J=1.8Hz,1H),7.49(d,J=8.1Hz,1H),7.62-7.69(m,3H),8.55(m,1H) IR(KBr)1474,1389,1364,1179,1151,1081,937,873,813,797,523cm ⁻¹
1.223	m.p.212-214°C ¹ HNMR(CDCl ₃ +CD ₃ OD) δ 3.45(8,3H),3.74(8,3H),4.13(8,2H),6.45(8,1H),6.90-6.96(m,3H),7.12(d,J=1.8Hz,1H),7.18-7.26(m,2 ¹ H),7.48-7.54(m,3H),7.68(m,1H),8.63(m,1H) ¹ IR(KB ₁)3504,3272,1612,1696,1574,1521,1492,1463,1465,1362,1310,1265,1222,1172,1116,1083,1052,1017,828cm ⁻¹
1-224	m.p.199-200°C HINMR(CDCL ₃) & 1.46(d,J=0.9Hz,3H),1.77(s,3H),3.44(s,3H),3.74(s,3H),3.90(m,2H),5.25(m,1H),6.04(brs,1H),6.45(s,1H),6.9 3&7.53(ABq,J=8.7Hz,4H),7.00(m,2H),7.05(m,1H) IR(KBr)3404,2999,2932,1612,1595,1522,1483,1454,1432,1401,1376,1357,1271,1223,1119,1080,1055,1015,974,938,829,81 7cm ¹
1-225	m.p.181-183°C ¹ HNMR(CDCl ₃) δ 1.37(s,9H),3.45(s,3H),3.75(s,3H),4.93(brs,1H),6.00(s,1H),6.46(s,1H),6.93&7.54(ABq,J=8.7Hz,4H),6.99(s,1H),7.01(dd,J=8.4Hz,J=1.5Hz,1H),7.16(d,J=1.5Hz,1H),7.49(d,J=8.4Hz,1H) ¹ IH),7.01(dd,J=8.4Hz,J=1.5Hz,1H),7.16(d,J=1.5Hz,1H),7.49(d,J=8.4Hz,1H) ¹ IR(KBr)3495,3412,2959,2931,1610,1568,1552,1521,1499,1477,1459,1400,1364,1319,1270,1227,1192,1161,1116,1102,1090,1052,1019,942,833,817,588cm ⁻¹

Table 50

1-226	m.p.154-156°C HINMR(CDCL ₃) & 2.33(s,3H),3.45(s,3H),3.75(s,3H),3.90(s,2H),4.68(s,1H),5.97(s,1H),6.45(s,1H),6.60(s,1H),6.90-6.98(m,3H), 7.10(s,5H),7.41(d,J=8.1Hz,1H),7.53(m,2H) IR(KBr)3462,3368,16H,1550,1621,1499,1472,1455,1437,1401,1362,1321,1293,1267,1229,1187,1174,1164,1118,1077,1050 1011,821cm ⁻¹
1-227	m.p.172-174°C HINMR(CDCL ₃) & L.3R(d,J=1.211z,3H),1.76(a,3H),3.44(a,3H),3.75(a,3H),3.87(d,J=7.8Hz,2H),5.08(brs,1H),5.26(m,1H),6.08(s ,1H),6.45(s,1H),6.94&7.53(ABq,J=8.7Hz,4H),7.11-7.14(m,2H),7.62(d,J=8.7Hz,1H),8.87(s,1H) IR(KBr)3412,1613,1520,1478,1458,1443,1404,1360,1346,1290,1270,1224,1200,1171,1119,1078,1054,945cm ⁻¹
1-228	m.p.173-176 $^{\circ}$ C lfn, 2H), 1.74(s, 3H), 2.10(s, 3H), 2.50-2.61(m, 2H), 3.20(s, 3H), 3.21(s, 3H), 3.37(s, 3H), 3.71(s, 3H), 4.08(t, J=6.8Hz, 2H), 5.21-5.25(m, 1H), 6.73(s, 1H), 7.03-7.18(m, 2H), 7.23-7.25(m, 2H), 7.37(d, J=8.6Hz, 2H), 7.69(d, J=8.8Hz, 2H) IR(KBr)3600-3200(br), 3100-2800(br), 1610, 1627, 1623, 1477, 1432, 1365, 1240, 1172, 1160, 965, 923cm $^{-1}$
1.229	m.p.148-150°C ¹ HNMR(CDCl ₃)
1.230	m.p.194·195°C !HNMR(CDCl3) & 2.10(8,3H),2.39(8,3H),3.10(8,3H),3.21(8,3H),3.36(8,3H),3.71(8,3H),5.13(8,2H),6.73(8,1H),7.14-7.18(m,8H), 7.69(d,J=9.0Hz,2H) !R(KBr)3600-3200(br),3100-2800(br),1516,1476,1360,1332,1292,1266,1228,1199,1174,1151,1119,1098,1084,1005,968cm ⁻¹

Table 51

50	45	40	35	30	25	20	15	. 10	5
1.231	m.p.178-180°C HINMR(CDCl ₃) & 2.09(s,3H),2.40(s,3H),3.37(s,3H),3.72(s,3H),4.97(brs,1H),5.10(s,2H),5.67(br,1H),6.70-6.75(m,2H),6.86-7. 03(m,3H),7.22-7.26(m,2H),7.32-7.34(m,2H),7.54(d,J=8.2Hz,2H) IR(KBr)3600-3200(br),3100-2800(br),1611,1519,1479,1463,1388,1339,1314,1286,1258,1246,1225,1128,1098,1077,1007cm	2.09(s,3H),2.40 26(m,2H),7.32-7.3 0(hr),3100-28000	(s,3H),3.37(s, 14(m,2H),7.54 br),1611,1519	(311),3.72(s,311; 1(d,J=8.21fz,21 9,1479,1463,13),4.97(brs, 1H),4 1) 888,1339,1314,	5.10(s,2H),5.67 1286,1258,124	7(hr, 111), 6.70 16, 1226, 1128	-6.75(m,2H),6	86-7. 37cm
1-2:32	m.p.177-179°C ¹ HINMR(CDCl ₃) δ 2.54(4,3H),2.69(4,3H),3.13(4,3H),3.54(4,3H),3.77(4,3H),5.19(6,2H),6.85(6,1H),7.15(d,J=8.4Hz,2H),7.30-7. ⁴ 9(m,9H),7.53-7.59(m,2H) ¹ R(CHCl ₃)1516,1476,1368,1266,1176,1118,1077,1080,1013,970,876,820cm ⁻¹	2.64(4,3H),2.69 59(m,2H) 476,1368,1266,11	(4,311),3.13(4,	311),3.64(a,311)),3.77(s,311),5.1 0,876,820cm	19(e,211),6.85(e	,111),7.15(d,J	1=8.4112,211),7.	30-7.
I-233	amorphouspowder !HNMR(CDCl ₃) & 2.54(8,3H),3.46(8,3H),3.75(8,3H),5.15(6,2H),5.67(brs,1H),5.90(6,1H),6.46(8,1H),6.95(d.d,J=1.8&8.1Hz,1H),7.02(d,J=8.1Hz,1H),7.09(d,J=1.8Hz,1H),7.31-7.49(m,7H),7.55-7.62(m,2H) IR(CHCl ₃)3526,1517,1483,1414,1389,1289,1246,1192,1114,1070,1010,937,818cm ⁻¹	r 2.54(s,3H),3.46(1H),7.09(d,J=1.8F 517,1483,1414,13	8,3H),3.75(8,5 4z,1H),7.31-7 89,1289,1246	3H),5.15(s,2H), .49(m,7H),7.5t .,1192,1114.,10	5.67(brs,1H),5 5.7.62(m,2H) 770,1010,937,8	.90(s,1H),6.46	(a, 1H), 6.95(d	.d,J=1.8&8.1H	z,1H
I-234	¹ HNMR(CDCl ₃) 5 1.76(s,3H),1.81(s,3H),2.73(s,3H),3.24(s,3H),3.53(s,3H),3.79(s,3H),3.96(s,3H),4.64(d,J=6.9Hz,2H),5.49(t,J=6.9Hz,1H),7.09(d,J=8.4Hz,1H),7.35(d,d,J=8.4Hz,1H),7.39(d,J=2.1Hz,1H),7.71(d,J=8.4Hz,2H),8.13(d,J=8.4Hz,2H)	1.76(s,3H),1.81(t s,1H),7.09(d,J=8.	8,3H),2.73(8,5 4Hz,1H),7.35	(d.d,J=8.4&2.	3.53(s,3H),3.7! 1Hz,1H),7.39(d	3(s,3H),3.96(s,	3H),4.64(d,J= 7.71(d,J=8.4	=6.9Hz,2H),5.4 Hz,2H),8.13(d	9(t,J ,J=8.
1.235	1HNMR(CDCl ₃) δ 2.69(8,3H),3.14(8,3H),3.56(8,3H),3.80(8,3H),6.20(8,2H),6.89(8,1H),7.16(d,J=9.0Hz,1H),7.34(d,J=2.1Hz,1 H),7.36-7.51(m,6H),7.75(d,J=8.4Hz,2H),8.23(d,J=8.4Hz,2H) IR(KB ₁)3427,1724,1685,1606,1509,1481,1369,1272,1235,1179,1120,1084,1017cm ⁻¹	2.69(s,3H),3.14 1),7.75(d,J=8.4Hz 4,1685,1606,1509	(s,3H),3.55(s, 2,2H),8.23(d,J	3H),3.80(8,3H, =8.4Hz,2H) 272,1235,1179),5.20(a,2H),6.8 ,1120,1084,10)	39(a, 1H), 7.16(c	1,J=9.0Hz,1H	l),7.34(d,J=2.1	Hz, 1
1.236	1HNMR(CDCl3) 6 3.46(s,3H),3.77(s,3H),5.16(s,3H),6.50(s,3H),6.96(dd,J=84&2.1Hz,1H),7.03(d,J=8.4Hz,1H),7.09(d,J=2.1 Hz,1H),7.34-7.50(m,5H),7.75(d,J=8.1Hz,2H),8.17(d,J=8.1Hz,2H)	3.46(s,3H),3.77(m,5H),7.75(d,J=8	(s,3H),5.16(s,	3H),6.50(8,3H) 7(d,J=8.1Hz,2	,6.96(dd,J=8 [.] H)	1&2.1Hz,1H),7	.03(d,J=8.4H	Iz,1H),7.09(d,	=2.1

. 55

Table 52

	1HNMR(CI)Cl;) \$\delta\$ 3.44(s, 3H), 3.76(s, 3H), 3.96(s, 3H), 5.16(s, 2H), 5.69(s, 1H), 5.89(s, 1H), 6.49(s, 1H), 6.96(d, d, J=84&2.1Hz, 1H),
1-2:37	7.03(d,J=8.4Hz,1H),7.09(d,J=2.1Hz,1H),7.32-7.50(m,5H),7.73(d,J=8.4Hz,2H),8.13(d,J=8.4Hz,2H)
	IR(KBr)3497,3443,1708,1608,1585,1487,1460,1443,1395,1281,1113,1068,1008cm ⁻¹
	HINMR(CDCh) & 2.69(8,3H),3.13(8,3H),3.53(8,3H),3.79(8,3H),3.96(8,3H),5.19(8,2H),6.87(8,1H),7.15(4,J=9.0Hz,1H),7.31-7.
1-238	50(m,711),7.71(d,J=8.4112,211),8.13(d,J=8.4Hz,2H)
	1R(KBr)1719,1608,1481,1366,1278,1118,1080,1017cm '
	111111111111111111111111111111111111
	111),7.21(d,J=8.4Hz,211),7.34(d,J=8.4Hz,2H),7.36(d,J=8.7Hz,1H),7.40(d,J=2.1Hz,1H),7.71(d,J=8.7Hz,2H),8.13(d,J=8.4Hz,2
652-1	=
	IR(KBr)1718,1607,1519,1481,1355,1280,1232,1182,1121,1079,1018cm ⁻¹
	1HNMR(CDCl ₃) & 2.70(s,3H),3.03(s,3H),3.12(s,3H),3.55(s,3H),3.77(s,3H),5.18(s,2H),6.78-6.89(broad,1H),6.86(s,1H),7.14(d,
1.240	J=8.4Hz,1H),7.31-7.49(m,8H),7.55(d,J=8.4Hz,2H)
	IR(KBr)1604,1526,1483,1395,1374,1360,1292,1231,1177,1119,1078,1014cm ⁻¹
	111NMIR(CDC13) 6 2.37(8,3H), 2.69(8,3H), 3.05(8,3H), 3.12(8,3H), 3.55(8,3H), 3.77(8,3H), 5.14(8,2H), 6.85(8,1H), 6.81·6.91(broad,
I.241	2H),7.14(d,J=8.4Hz,1H),7.21(d,J=8.1Hz,1H),7.34(d,J=8.1Hz,2H),7.40(d,J=2.1Hz,1H),7.56(d,J=8.4Hz,2H)
	IR(KBr)1605,1529,1484,1396,1356,1275,1233,1178,1121,1078,1016cm ⁻¹
	HNMR(CDCl3) 6 1.76(8,3H), 1.81(8,3H), 2.73(8,3H), 3.03(8,6H), 3.22(8,3H), 3.55(8,3H), 3.77(8,3H), 4.63(d, J=6.6Hz, 2H), 5.49(t, J
9,0	=6.6Hz,1H),6.75-6.91(broad,2H),6.86(s,1H),7.08(d,J=8.7Hz,1H),7.34(d.d,J=8.7&2.1Hz,1H),7.39(d,J=2.1Hz,1H),7.55(d,J=8.
1.242	7Hz,1H)
	IR(KBr)1609,1529,1482,1363,1235,1178,1117,1078,1013cm ⁻¹
1.243	IR(KBr)3409,1608,1509,1464,1367,1230,1175,1149,1079,1018cm ⁻¹
1	

Table 53

50	15	10 .	!	0	·5	o	5	o	
-244	1HNMR(CDCB) & 1.72(s,3H),1.76(s,3H),2.55(m,2H),3.22(s,3H),3.45 1H),4.51(d,J=10.5Hz,1H),4.66(d,J=10.5Hz,1H),4.75(d,J=10.5Hz,1H)),7.21(d,J=8.7Hz,1H),7.39(d,J=9.0Hz,2H)7.71(d,J=9.0Hz,2H) 1R(KBr)3307,1609,1509,1465,1364,1235,1180,1152,1082,1021cm ⁻¹	(7!3) δ 1.72(s,3H),1.76(s,3H),2.55(m,2H),3.22(s,3H),3.45(s,3H),3.72(s,3H),4.07(d,J=6.6Hz,2H),4.46(d,J=10.5Hz, 1=10.5Hz,1H),4.66(d,J=10.5Hz,1H),4.75(d,J=10.5Hz,1H),5.24(brs,1H),6.84(s,1H),6.95(d,J=8.7Hz,1H),7.02(s,1H),7.39(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2H),7.1(d,J=9.0Hz,2Hz,2H),7.1(d,J=9.0Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2	i(s,3II),2.55(n) = 10.5IIz,1II), Hz,2H)7.71(d 4,1235,1180,1	n,211),3.22(a,31 ,4.75(d,J=10.51 ,J=9.0Hz,2H)	[],3.45(s,3H), ² Hz,1H),5.24(b ₁ 1cm ⁻¹	3.72(8,3H),4.07(rs,1H),6.84(6,1H	d,J=6.6Hz,2 l),6.95(d,J=	2H),4.46(d,J=1 8.7Hz,1H),7.0	0.5Hz, 2(s,1H
-245	m.p.182-184°C HINMR(CDCl ₃) & 2.42(s,3H),2.70(s,3H),3.13(s,3H),3.53(s,3H),3.77(s,3H),5.19(s,2H),6.86(s,1H),7.13-7.53(m,12H) HR(KBr)3434,3030,2937,1605,1522,1483,1366,1274,1235,1176,1119,1086,1011cm ⁻¹	2.42(s,3H),2.70((s,3H),3.13(s,32,1483,1366,1	3H),3.53(s,3H) [274,1235,1170),3.77(s,311),5. 6,1119,1086,10	19(s,2H),6.86(s, 311cm ¹	1H),7.13-7.E	63(m, 12H)	
-246	1HNMR(CDCl ₃) & 2.58(8,3H),3.21(8,3H),3.55(8,3H),3.77(8,3H),3.91(8,3H),5.26(m,2H),6.84(8,1H),7.12(d,J=9.0Hz,1H),7.27-7. 54(m,8H),7.60(d,J=8.7Hz,2H),7.90(d,J=2.1Hz,1H) (1175,1150,1083,1017cm ⁻¹	(Cl ₁) δ 2.58(s,3H),3.21(s,3H),3.55(s,3H) 60(d,J=8.7Hz,2H),7.90(d,J=2.1Hz,1H) 8,1699,1605,1513,1480,1362,1239,117	(s,3H),3.55(s,3) (d,J=2.1Hz,1) 0,1362,1239,1	311),3.77(8,311) H) 1175,1150,1083	3,1017cm ⁻¹	26(m,2H),6.84(s	,1H),7.12(d,	,J=9.0Hz,1H),	7.27-7.
-247	IR(KBr)1729,1607,1512,1479,1366,1234,1177,1151,1079,1015cm ⁻¹ 14 NMR (CDCl ₃) & 1.75 (s, 3H), 1.79 (s, 3H), 2.57 (s, 3H), 3.21 (s, 3H), 3.56 (s, 3H), 3.78 (s, 3H), 3.89 (s, 3H), 4.63 (d, J = 6.6Hz, 2H), 5.49 - 5.58 (m, 1H), 6.85 (s, 1H), 6.93 - 7.00 (m, 3H), 7.38 (d, J = 8.7Hz, 2H), 7.70 (d, J = 8.7Hz, 2H) 18 (KBr)1603, 1518, 1482, 1365, 1239, 1176, 1160, 1078cm ⁻¹	9,1607,1512,1479,1366,1234,1177,1151,1079,1015cm ⁻¹ DCl ₃) 6 1.75 (s, 3H), 1.79 (s, 3H), 2.57 (s, 3H), 3.21 (s, 3H), 3.56 (s, 3H), 3.78 (s, 3H), 3.89 (s, 3H), 5.49 · 5.58 (m, 1H), 6.85 (s, 1H), 6.93 · 7.00 (m, 3H), 7.38 (d, J = 8.7Hz, 2H), 7.70 (d, J = 8.7Hz, 2H), 3, 1518, 1482, 1365, 1239, 1176, 1150, 1078cm ⁻¹	6,1234,1177,1 1.79 (s, 3H), 86 (s, 1H), 6.9 1239, 1176,	2.57 (s, 3H), 3 33.7.00 (m, 3H)	5cm ⁻¹ .21 (s, 3H), 3.t 1), 7.38 (d, J =	56 (e, 3H), 3.78 8.7Hz, 2H), 7.7	(s, 3H), 3.85	9 (s, 3H), 4.63 7Hz, 2H)	(d, J =
-249	foam 'HNMR(CDCla) & 2.30(br,1H),2.76-2.82(m,2H),3.64-3.68(m,2H)3.87(s,1H),5.14(s,2H),5.7.78(s,1H),6.84(d,J=1.8Hz,1H),6.97-7.01(m,3H),7.37-7.49(m,5H),7.66-7.61(m,2H) IR(KBr)3600-2800(br),1608,1583,1517,1464,1387,1287,1247,1225,1178,1082,1015cm ⁻¹	Cl ₃) δ 2.30(br,1H),2.76-2.82(m,2H),3.64-3.68(m,2H)3.87(s,1H),5.14(s,2H),5.70(s,1H),6.70(dd,J=2.1,8.4Hz,1H),6 94(d,J=1.8Hz,1H),6.97-7.01(m,3H),7.37-7.49(m,5H),7.56-7.61(m,2H) 0-2800(br),1608,1583,1517,1464,1387,1287,1245,1178,1082,1015cm ⁻¹	6-2.82(m,2H), 7.01(m,3H),7 1517,1464,13	,3.64-3.68(m,2] 7.37-7.49(m,51) 87,1287,1247,)	H)3.87(s,1H),5 1),7.56-7.61(m 1225,1178,108	5.14(8,2H),5.70(,2H) (2,1015cm ⁻¹	8,1H),6.70(d	ld,J=2.1,8.4H2	;,1H),6
-250	m.p.104·105°C !HNMR(CDCl ₃) & 0.76(t,J=7.5Hz,3H),1.44-1.54(m,2H),3.61(s,3H),3.71(t,J=6.6Hz,2H),3.74(s,3H),3.87(s,3H),5.16(s,2H),5.63 (s,1H),6.66(s,1H),6.90(dd,J=2.1,8.4Hz,1H),6.96·7.01(m,4H),7.04(d,J=1.8Hz,1H),7.37-7.48(m,5H),7.51-7.56(m,2H) IR(KBr)3600-2800(br),1608,1593,1518,1474,1462,1379,1294,1251,1226,1183,1109,1078,1040,1008cm ⁻¹	0.76(t,J=7.5Hz, .90(dd,J=2.1,8.4 br),1608,1593,	3H), 1.44-1.54 4Hz, 1H), 6.96- 1518, 1474, 140	(m,2H),3.61(s, -7.01(m,4H),7.1 62,1379,1294,1	3H),3.71(t,J=(04(d,J=1.8Hz, 1251,1226,118	3.6Hz,2H),3.74(1H),7.37-7.48(n 3,1109,1078,10	8,3H),3.87(e 1,5H),7.51-7 40,1008cm	s,3H),5.16(s,2H 7.56(m,2H) - 1	1),6.63

Table 54

	m.p.103·105°C
	$HINMR(CIICL_3) \otimes 0.78(t, J=7.2Hz, 31I), 1.15-1.27(m, 21I), 1.43-1.51(m, 21I), 3.61(s, 31I), 3.73-3.77(m, 21I), 3.74(s, 31I), 3.87(s, 31I), 5.87(s, 31I), 5$
1-251	.16(8,211),5.63(8,111),6.65(8,111),6.90(dd,J=2.1,8.1112,111),6.96-7.01(m,311),7.04(d,J=2.1Hz,111),7.37-7.48(m,6H),7.51-7.56(m
	(112,
	IR(KBr)3600-2800(br),1607,1518,1467,1375,1288,1251,1179,1113,1084,1020,1008cm ⁻¹
	m.p.111.5-112.5°C
	111111111111111111111111111111111111
1.252	.18(s,211),6.66(s,111),6.96-7.01(m,2H),7.10(d,J=8.711z,1H),7.26-7.55(m,9H)
	IR(KBr)3600-2800(br), 1609, 1518, 1464, 1440, 1375, 1355, 1289, 1269, 1249, 1181, 1170, 1107, 1080, 1019cm ⁻¹
	$HNMR(CDC(I_3) \delta - 1.76(s, 3H), 1.82(s, 3H), 3.45(s, 3H), 3.76(s, 3H), 4.62(d, J = 8.4Hz, 2H), 5.54(t, J = 8.4Hz, 1H), 6.49(s, 1H), 6.91.6.99$
1.253	(m,2H),7.05(d,J=1.5Hz),7.74(d,J=8.7Hz,2H),8.15(d,J=8.7Hz,2H)
	IR(KBr)3474,1687,1607,1509,1417,1397,1316,1287,1240,1109,1071,1006cm ⁻¹
	1HNMR(CDCl:1) & 2.39(s, 3H), 3.45(s, 3H), 3.76(s, 3H), 5.11(s, 2H), 6.49(s, 1H), 6.94(dd, J=8.4&1.8Hz, 1H), 7.04(d, J=8.4Hz, 1H), 7.0
1.254	6(d,J=1.8Hz),7.19-7.38(m,4H),7.73(d,J=8.4Hz,2H),8.14(d,J=8.4Hz,2H)
	IR(KBr)3549,3466,1668,1603,1518,1489,1465,1449,1421,1397,1372,1288,1236,1186,1117,1074,1017cm ⁻¹
	1HNMR(CDCl3) & 1.76(8,3H), 1.82(8,3H), 3.02(8,6H), 3.48(8,3H), 3.74(8,3H), 4.61(d,J=7.2Hz,2H), 5.53(t,J=7.2Hz,1H), 5.66(8,1H)
1.255	1.255),5.92(8,1H),6.47(8,1H),6.81(broad,2H),6.95(8,2H),7.06(8,1H),7.56(d,J=8.7Hz,2H)
	IR(KBr)3535,3494,3452,1606,1526,1487,1406,1357,1288,1242,1195,1112cm ⁻¹
	$HINMR(CDCR_3) \delta = 2.39(s, 3H), 3.02(s, 6H), 3.48(s, 3H), 3.74(s, 3H), 5.10(s, 2H), 5.66(s, 1H), 5.93(s, 1H), 6.47(s, 1H), 6.82(d, J=8.4Hz, J=8.4Hz)$
	2H), 6.96(dd, J=8.1&1.8Hz, 1H), 7.02(d, J=8.1Hz, 1H), 7.08(d, J=1.8Hz, 1H), 7.23(d, J=7.8Hz, 2H), 7.34(d, J=7.8Hz, 2H), 7.56(d, J=8.1Wz, 2H), 7.34(d, J=7.8Hz, 2H), 7.56(d, J=8.1Wz, 2H), 7.56(d, J=8.1Wz, 2H), 7.56(d, J=8.1Wz, 2H), 7.34(d, J=7.8Hz, 2H), 7.56(d, J=8.1Wz, 2H), 7.56(d, J=
007-1	4Hz,2H) JR(KBr)3536,3379,1610,1586,1628,1489,1460,1443,1361,1288,1250,1225,1195,1117,1072,1008cm ⁻¹

Table 55

50	4 5	40	35	30	25	20	15	10	5
	11 INMR(CDCl ₃) \$ 1.71(8,3H),1.76(8,3H),2.49-2.60(m,2H),3.44(8,3H),3.70(8,3H),4.06(t,J=6.3Hz,2H),4.48(d,J=6.0Hz,2H),4.7	1.71(s,3H),1.7	6(s,3H),2.49-2	.60(m,2H),3.4	14(s,3H),3.70	(s,3H),4.06(t,J=	:6.3Hz,2H),4	48(d,J=6.0Hz	,2H),4.7
257	1(d,J=8.7Hz,2H),5.23(t,J=8.7Hz,1H),5.37(bronds,1H),6.84(s,1H),6.91-6.97(m,1H),6.92(d,J=8.4Hz,2H),7.18-7.23(m,2H),7.52	:3(t,J=8.7Hz,	IH),5.37(broad	ls, 111),6.84(s,	111),6.91-6.97	(m,1H),6.92(d,	J=8.4Hz,2H)	,7.18-7.23(m,5	2H),7.52
	IR(KBr)3398,1612,1518,1465,1389,1232,1174,1131,1101,1081,1023cm ¹	518,1465,138	19,1232,1174,1	1131,1101,108	11,1023cm 1	,			
	14NMR(CDCl ₃) \(\delta\) :3.21(s,3H),3.41(s,3H),3.63(s,3H),3.77(s,3H),4.76(s,2H), \(\delta\) :5.15(s,2H),6.94(s,1H),6.99(d,J=8.7Hz,1H),7.23-	3.21(s,3H),3.4	1(s,3H),3.63(e	,3H),3.77(8,3	H),4.76(8,2H)	, 5.15(s,2H),6.	94(s, 1H),6.99	(d,J=8.7Hz,1	H),7.23-
258	7.49 (m, 911), 7.71(d,J=8.7Hz,2H)	,J=8.711z,211)							
	1R(KBr)3497, 1738, 1721, 1607, 1509, 1469, 1362, 1242, 1152, 1056, 1017cm ⁻¹	721,1607,150	9,1469,1362,1	242,1152,100	6,1017cm ⁻¹				
	foam								
020	14NMR(CI)CL;) δ 2.35(s,6H),2.73(s,3H),2.79(t,J=5.7Hz,2H),3.21(s,3H),3.31(s,3H),3.56(s,3H),3.78(s,3H),4.19(t,J=5.7Hz,2H)	.35(s,6H),2.7;	3(s,3H),2.79(t,	J=5.7Hz,2H),	3.21(s,3H),3.	31(s,3H),3.56(s	,3H),3.78(s,3	H),4.19(t,J=5.	7Hz,2H
601),6.84(s,111),7.09(d,J=8.4Hz,1H),7.34-7.41(m,4H),7.66-7.71(m,2H)	=8.4Hz,1H),7	.34-7.41(m,41	I),7.66-7.71(m	1,211)				
	IR(KBr)3600-2700(hr), 1519, 1481, 1365, 1273, 1200, 1177, 1151, 1120, 1079, 1015cm-1	r), 1519, 1481	1365,1273,12	00,1177,1151	1120,1079,10)15cm ⁻¹			
	foam								
5	¹ HNMR(CDCl ₃ +CD ₃ OD) & 2.71(t,J=5.1Hz,2H),3.46(s,6H),3.73(s,6H),4.11(t,J=5.1Hz,2H),6.44(s,1H),6.87-6.99(m,4H),7.04(d	,OD) & 2.71(t	,J=5.1Hz,2H),	3.46(s,6H),3.7	3(s,6H),4.11(t,J=5.1Hz,2H),	6.44(s,1H),6.	87-6.99(m,4H),7.04(d
3	,J=2.1Hz,111),7.49·7.53(m,2H)	.53(m,2H)							
	IR(KBr)3600-2200(br), 1607, 1583, 1519, 1475, 1407, 1390, 1275, 1252, 1226, 1114, 1062cm ⁻¹	r),1607,1583	1519,1475,14	07,1390,1275	1252,1226,11	114,1062cm ⁻¹			
	m.p.85-87°C								
;	¹ HNMR(CDCl ₃) δ 3.49(s,3H),3.75(s,3H),5.15(s,2H),5.23(brs,1H),5.68(brs,1H),5.89(s,1H),6.43(s,1H),6.95(dd,J=8.3,2.1Hz,1	.49(s,3H),3.7	5(s,3H),5.15(s,	,2H),5.23(brs,	1H),5.68(brs	,1H),5.89(s,1H)	,6.43(a,1H),6	.95(dd,J=8.3;	2.1Hz,1
100	H),7.03(d,J=8.3Hz,1H),7.08(d,J=2.1Hz,1H),7.08(t,J=8.7Hz,1H),7.33(ddd,J=8.7,2.1,1.2Hz1H),7.37-7.47(m,6H)	H),7.08(d,J=2	.1Hz,1H),7.08	(t,J=8.7Hz,11	I),7.33(ddd,J	=8.7,2.1,1.2Hz	1H),7.37-7.47	(m,6H)	
	1R(KBr)3410,1525,1488,1284,1248,1102,1010,759,704cm-1	488,1284,124	8.1102.1010.7	59.704cm ⁻¹					

Table 56

1.262	m.p.138-140°C HINMR(CDCl ₃) & 1.77(s,3H),1.82,(s,3H),3.21(s,3H),3.22(s,3H),3.48(s,3H),3.78(s,3H),4.64(d,J=6.5Hz,2H),5.51(t,J=6.5Hz,1 H),7.05(d,J=8.5Hz,1H),7.08(s,1H),7.14(dd,J=8.5,2.2Hz,1H),7.34(d,J=2.2Hz,1H),7.40(d,J=8.7Hz,2H),7.69(d,J=8.7Hz,2H),10
	.00(8,111) IR(KBr)1693,1514,1470,1361,1348,1275,1239,1175,1151,979,969,867,845,815cm ¹
696	form HINMR(DMSO-da) & 1.74(9,311), 1.78(9,311), 3.32(9,311), 3.44(9,311), 3.76(9,311), 4.66(d,J=6.6Hz,211), 5.49(t,J=6.6Hz,111), 7.11(9,
607.1	1H),7.23-7.25(m,3H),7.48(d,J=8.6Hz,2H),7.77(d,J=8.6Hz,2H),13.1(brs,1H) 1R(KBr)3431,1737,1518,1471,1177,1151,972,864,849cm ¹
100	m.p. 153.5-155.5°C !HNMR(CDCl ₃)
107.1) IR(CHCl ₃)1607,1520,1481,1412,1368,1298,1267,1131,1080,1012,960,942,907,869,836,812cm ⁻¹
200	$d_{\rm P}>116^{\circ}$ U HNMR(CDCl ₃ +CD ₃ OD) δ 2.69(8,3H),3.15(8,3H),3.16(8,3H),3.57(8,3H),3.80(6,3H),5.21(8,2H),6.88(8,1H),7.19(d,J=8.4Hz,1H) = 0.0000000000000000000000000000000000
1-269),7.34-7.51(m,7H),7.83-7.90(m,2H),8.01-8.07(m,5H) 1R(KBr)3434,3028,2934,1596,1519,1460,1365,1308,1276,1173,1148,1119,1108,1012,946,841,819cm ⁻¹
1.266	m.p.136-138°C !HNMR(CDCl ₃) & 3.43(a,3H),3.76(a,3H),5.19(a,2H),5.98(a,1H),6.44(a,1H),7.04-7.52(m,10H),7.57-7.65(m,5H)
	IR(CHCl ₃)3496,1612,1521,1488,1454,1412,1391,1313,1267,1157,1113,1069,1010,934,825cm ⁻¹

Table 57

1.267	foam 'HINMR(CDCh,) & 2.38(8,311),3.10(8,311),3.21(8,311),3.41(8,311),3.67(8,311),3.77(8,311),5.11(8,211),6.93(8,111),7.09(d,J=8.6Hz,
1-268	amorphous HINMR(DMSO-da) & 1.64(8,3H), 1.70(8,3H), 2.44(q,J=7.2Hz,2H), 3.30(8,3H), 3.70(8,3H), 3.93(t,J=7.2Hz,2H), 5.26(t,J=7.2Hz,1] HI), 6.64(dd,J=8.6,2.1Hz,1H), 6.74(d,J=2.1Hz,1H), 6.87(d,J=8.9Hz,2H), 6.87(d,J=8.6Hz,1H), 6.96(8,1H), 7.48(d,J=8.9Hz,2H), 8. 84(8,1H), 9.59(8,1H), 12.8(brs,1H) HR(CHCls)3594, 3540, 1743, 1707, 1520, 1470, 1260, 1068cm ⁻¹
1.269	m.p.206-208°C(dec.) HNMR(I)MSO-d ₆)
1-270	foam !HNMR(CDCl ₃)
1.271	m.p.143·145℃ ¹ HNMR(CDCl ₃)

Table 58

		oam HINMR(CDCL ₃) & 3.45(s,3H),3.71(s,3H),3.86(s,3H),5.15(s,2H),5.67(s,1H),5.84(s,1H),6.42(s,1H),6.98(dd,J=1.8,8.4Hz,1H),7. 1-7.07(m,2H),7.11(d,J=1.8Hz,1H),7.35-7.45(m,8H)
	_	IR(CHCE)3554,3024,1617,1587,1517,1503,1483,1462,1409,1290,1247,1226,1215,1122,1104,1072,1013cm ⁻¹
		1.p.155-156°C
		HINMR(CDCb) δ 1.76(в.3H), г.81(в.3H), 2.42(в.3H), 2.73(в.3H), 3.23(в.3H), 3.03(в.3H), 3.77(в.3H), 4.05(α,θ=0.0Hz, 2H), 9.49(m, HI), 6.86(в.HI), 7.09(d,θ=8.4Hz, HI), 7.25-7.53(m,6H)
	1	R(KBr)3434,2935,1605,1522,1465,1388,1365,1292,1273,1176,1119,1084,1011cm ⁻¹
	11	1.p.138-140°C
		111111111111111111111111111111111111
		.111),6.83(s,111),7.01-7.04(m,2H),7.08(d,J=8.4Hz,1H),7.26(d,J=0.6Hz,1H),7.34-7.43(m,3H)
	Ī	R(KBr)3433,2937,1608,1519,1480,1400,1368,1292,1271,1244,1179,1112,1081,1011cm ⁻¹
	=	1.p.96-97°C
		111NMR((CDCL) & 1.76(8,311), 1.82(8,311), 2.42(8,311), 3.46(8,311), 3.74(8,311), 4.61(d,J=6.6Hz,2H), 5.52(m,1H), 5.69(8,1H), 6.47(8,
	1	IR(KBr)3479,2935,1613,1585,1523,1509,1490,1458,1415,1395,1362,1315,1249,1196,1112,1070,1005cm ⁻¹
	ш	1.p.155:158°C
),5.82(8,11		1HNMR(CDCl ₃) § 1.76(d,J=0.9Hz,3H),1.82(d,J=0.9Hz,3H),3.45(s,3H),3.86(s,3H),4.61(d,J=6.9Hz,2H),5.35(m,1H),5.68(s,1H
	_	5.82(s,1H),6.42(s,1H),6.96-7.09(m,4H),7.35-7.41(m,2H)
	I	IR(KBr)3428,3005,2952,1613,1583,1517,1505,1487,1464,1451,1411,1387,1359,1317,1289,1245,1140,1101,1070,1013cm ⁻¹

Table 59

55

50	-277	-278	.280	-281
45	m.p.173-175°C !HNMR(CDCl ₃)	m.p.151-154°C HINMR(CDCL3) & 1.69(8,3H), 1.74(d,J=0.911z,3H),2.51-2.59(m,2H),2.75(8,3H),3.21(8,3H),3.54(8,3H),3.73(8,3H),3.84(8,3H),4. 07(t,J=6.9Hz,2H),5.21(m,1H),6.83(8,1H),7.00-7.08(m,3H),7.34-7.43(m,4H) IR(KBr)3434,2935,1610,1581,1522,1479,1399,1362,1283,1246,1180,1125,1114,1082,1046cm ⁻¹ m.p.90-92°C HNMR(CDCl3) & 1.69(8,3H),1.75(8,3H),2.42(8,3H),2.49-2.56(m,2H),3.45(8,3H),3.74(8,3H),4.06(t,J=6.6Hz,2H),5.22(m,1H),5	.67(s,1H),5.90(s,1H),6.46(s,1H),6.94-7.06(m,3H),7.25-7.28(m,2H),7.52-7.55(m,2H) IR(KBr)3529,3381,2927,1616,1586,1522,1490,1465,1418,1398,1360,1315,1289,1251,1225,1192,1114,1070,1011cm ⁻¹ m.p.82-84°C HNMR(CDCl ₃) & 1.69(s,3H),1.75(s,3H),2.49-2.56(m,2H),3.45(s,3H),3.71(s,3H),3.85(s,3H),4.06(t,J=6.6Hz,2H),5.22(m,1H),5.67(s,1H),5.82(s,1H),6.42(s,1H),6.92-7.09(m,5H),7.35-7.43(m,2H) IR(KBr)3420,3326,2935,1615,1583,1518,1504,1486,1410,1316,1289,1222,1101,1071,1018cm ⁻¹	m.p.166-168°C !HNMR(CDCl ₃) & 2.38(s,3H),2.69(s,3H),3.11(s,3H),3.54(s,3H),3.73(s,3H),3.84(s,3H),5.14(s,2H),6.83(s,1H),7.00-7.44(m,11H) !R(KBr)3434,2941,1608,1521,1498,1482,1466,1397,1368,1284,1243,1177,1113,1079,1019cm ⁻¹
40	1.68(s,3II), 1. (H),6.86(s,1H)	1.69(s,3H), 1. 5.21(m,1H),6. 5,1610,1581,1	H), 6.46(s, 1H), 1,2927, 1616, 11 1.69(s, 3H), 1.' H), 6.42(s, 1H), 6, 235, 1615, 11	2.38(s,3H),2.0
35	74(s,311),2.42(,7.06(d,J=8.7H	74(d,J=0.911z,: 83(s,1H),7.00- 522,1479,1399 75(s,3H),2.42(s	6.94-7.06(m,31 686,1522,1490 75(s,3H),2.49-5 6.92-7.09(m,51 583,1518,1504	69(s,3H),3.11(a
30	(a,311),2.51-2.6 (z,1H),7.25-7.:	311),2.51-2.59(7.08(m,3H),7. 1362,1283,12 3,3H),2.49-2.56	H),7.25-7.28(n ,1466,1418,13 2.56(m,2H),3.4 H),7.35-7.43(m ,1486,1466,14	s,3H),3.54(s,3]
25	(0(m,211),2.75(28(m,211),7.35	m,211),2.75(e,;34-7.43(m,411),46,1180,1125,3(m,2H),3.45(e,	1,2H),7.52-7.5 198,1360,1315 15(8,3H),3.71(6 1,2H) 10,1316,1289,	H),3.73(6,3H),
20	(dd,J=2.1,8.7)	3H),3.21(8,3H) ,1114,1082,10 8,3H),3.74(8,3	6(m,2H) ,1289,1251,12 8,3H),3.85(8,3 1249,1122,11	3.84(8,3H),5.1
15	H),3.53(s,3H), Hz,1H),7.40(d),3.54(8,3H),3. 46cm ⁻¹ H),4.06(t,J=6.0	25,1192,1114, H),4.06(t,J=6.0	4(e,2H),6.83(e
10	,3.76(s,3H),4.07 ,J=2.1Hz,1H),7	73(s,3H),3.84(s	1070,1011cm	,1H),7.00-7.44(
5	(t,J=6.	3H),4.	,1H),5	m,11H

Table 60

.

1.282	m.p.109-111°C
1.283	411NMR(CDCh) & 2.38(s,311), 2.68(s,311), 3.12(s,311), 3.53(s,111), 3.77(s,311), 5.14(s,211), 6.83(s,111), 7.10-7.24(m,511), 7.33(d,J=8.411z,111), 7.34(d,J=8.411z,211), 7.40(d,J=2.111z,111), 7.66-7.64(m,211) 18.(18h;) 1603, 1520, 1482, 1367, 1297, 1297, 1251, 1292, 1176, 1120, 1084, 1012cm ⁻¹
1-284	'HINMR(CDCL;) δ 2.39(8,3H),3.45(8,3H),3.75(8,3H),5.10(8,2H),5.68(8,1H),5.88(8,1H),6.44(8,1H),6.95(dd,J=8.4&2.1Hz,1H),7.03(d,J=8.4Hz,1H),7.05(d,J=8.4Hz,1H),7.05(m,2H)8 103(d,J=8.4Hz,1H),7.07(d,J=2.1Hz,1H),7.08·7.29(m,4H),7.34(d,J=8.4Hz,2H),7.56·7.65(m,2H)8 118(KBr)3504,3330,1604,1596,1490,1461,1455,1424,1360,1318,1242,1223,1121,1071,1009cm ⁻¹
1.285	'HINMR(CDCL ₁) & 2.69(s,3H),3.13(s,3H),3.56(s,3H),3.78(s,3H),5.19(s,2H),6.86(s,1H),7.05-7.15(m,1H),7.15(d,J=8.4Hz,1H),7.30-7.49(m,10H) 30-7.49(m,10H) IR(KBr)1610,1583,1517,1475,1455,1359,1296,1270,1239,1180,1116,1088,1013cm ⁻¹
1.286	'!!NMR(CDC\\\\) \(\phi\) 3.47(\(\alpha\)31),3.76(\(\alpha\)3H),5.15(\(\alpha\)2H),5.89(\(\alpha\)1H),6.46(\(\alpha\)1H),6.95(\(\alpha\)3-8.4\(\alpha\)2.1H\),7.03(\(\alpha\)3-8.4\(\alpha\)2.1H\),7.04-7.12(\(\ma\)2H),7.35-7.51(\(\ma\)9H) IR(\(\alpha\)1H\)),7.04-7.12(\(\ma\)2H\),7.35-7.51(\(\ma\)9H\) IR(\(\alpha\)1H\)),7.04-7.12(\(\ma\)2.156(\(\alpha\)3.150(\(\alpha\)3.110(\alpha\)1.105(\(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.110(\alpha\)3.1110(\alpha\)3.110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\alpha\)3.1110(\a
1-287	¹ HNMR(CDCl ₃) δ 2.68(s,3H),3.14(s,3H),3.58(s,3H),3.81(s,3H),5.20(s,2H),6.88(s,1H),7.16(d,J=8.7Hz,1H),7.32·7.49(m,7H),7.60·7.68(m,1H),7.98·8.04(m,1H),8.24·8.29(m,1H),8.44·8·47(m,1H) IR(KBr)1609,1531,1362,1270,1239,1178,1122,1085,1014cm ⁻¹
1.288	¹ HNMR(CDCl ₃) δ 3.49(a,3H),3.78(a,3H),5.17(a,2H),5.71(a,1H),5.83(a,1H),6.49(a,1H))6.95(dd,J=12.3&1.2Hz,1H),7.02(d,J=1 2.3Hz,1H),7.08(d,J=1.2Hz,1H),7.33-7.50(m,5H),7.60-7.68(m,1H),7.97-8.06(m,1H),8.21-8.27(m,1H),8.52(a,1H) IR(KB ₁)3528,3358,1588,1527,1499,1454,1406,1348,1314,1241,1122,1070,1009cm ⁻¹

Table 61

55

HINMR(CDCL) 6 2.68(s,3H),3.13(s,3H),3.55(s,3H),5.17(s,3H),5.19(s,2H),6.79.6.88(m,1H),6.86(s,1H),7.02.7.10(m,2H),7.15(s,3H),7.267.7.50(m,8H) -289 4,d=8.4Hz,1H),7.267.7.50(m,8H) -290 110,013,013,013,013,013,013,013,013,013,	50	45	40	. 35	30	25	20	15	10	5
		HNMR(CDCla) &	2.68(s,3H),3.13(s	,3H),3.55(s,3H	I),3.77(s,3H),£	5.19(s,2H),6.79	-6.88(m,1H),6.	.86(s,1H),7.0;	2-7.10(m,2H),7	.15(
	-289	d,J=8.4Hz,1H),7.20 IR(KBr)3479,3388,	3-7.50(m,8H) 1623,1603,1518,	,1478,1396,130	58,1176,1118,	1081,1013cm	_			
		HINMR(CDCla) 8	3.11(s,3H),3.45(e	s,3H),3.77(s,3H	I),5.17(s,2H),(5.05(a, 1H), 6.46	(8,1H))7.00-7.	18(m,1H),7.1	4(d,J=8.4Hz,1]	Н),7
	290	.33-7.50(m,9H),7.5	2(d, J=2.1Hz,1H)							
		IR(KBr)3504, 1612,	1578, 1519, 1498,	,1464,1391,13	55, 1290, 1276,	1239,1183,116	7,1107,1070,10	004cm - 1		
		HINMR(CDCB+CF);(OD) & 3.44(s,3	11),3.76(4,311),	,4.74(H,2H),5.1	13(8,211),111),6.	86-6.95(m,311)	,6.99(d,J=8.7	711z, 111),7.30-7	.48(
	291	m,7H),7.52(d,J=8.7	Hz,2H)							
		IR(KBr)3433,1707,	1611,1518,1473,	1463, 1379, 125	50,1174,1132,	1089, 1058, 101	6cm ¹			
	-	"HNMR(CDCla+CE	3.41(s,3	11),3.62(s,311),3	3.75(s,3H),4.7	4(s,2H),5.15(s,	2H),6.87-7.01(m,4H),7.30-7	7.55(m,9H)	
	2372	IR(KBr)3386,1722,	1611,1518,1464,	1343,1271,124	15,1233,1215,	1168,1082,106	0,1021cm ⁻¹			
	293	HNMR(CDCla) & 2	2.38(s,3H),2.69(s	,3H),3.12(s,3H	I),3.56(8,3H),3	1.78(8,3H),5.14	(8,2H),6.85(8,1	H),7.05-7.46((m, 12H)	
		found	1010,1310,1311,	77,0101,10101	(0,111)	001(0111(1011				
		HINMR(CDCIs) & 3	3.45(s,3H),3.75(s,	,3H),4.36(d,J=	2.1Hz,1H),4.5	5(a,2H),4.76(d	,J=2.1Hz,1H),	6.45,(a,1H),6.	.92(d,J=8.7Hz,	2H)
	£0.7	,6.99(d,J=8.4Hz,1H),7.20(dd,J=1.5a	nd8.4Hz,1H),5	7.11(d,J=1.5H	z,1H),7.53(d,J:	=8.7Hz,2H)			
		IR(Nujol)3425,1612	2,1588,1523,1487	7,1295,1268,12	228,1113,1069	,825cm ⁻¹				
		foam								
	200	HINMR(CDCE) & 2	2.78(s,3H),3.21(s,	,311),3.23(8,311	l),3.55(a,3H),3	.78(8,311),4.79((d,J=6.6Hz,2H),6.21(t,J=6.6	3Hz, 1H), 6.85(s	HI,
IR(Nujol)1632,1607,1519,1482,1180,1150,1079,1011,976,814,798cm ⁻¹	3),7.08(d,J=8.7Hz,1F	I),7.37(dd,J=8.7,	2.1Hz,1H),7.3	8(d,J=8.7Hz,2	H),7.41(d,J=2.	1Hz,1H),7.68(d,J=8.7Hz,2F	E)	
		IR(Nujol) 1632, 1607	7,1519,1482,1180	0,1150,1079,10	11,976,876,81	14,798cm ⁻¹				

Table 62

1.296	foam HINMR(CD ₃ (OD) & 3.38(s,311),3.68(s,311),4.12(hrs,211),4.65(hrs,211),5.01(m,211),6.43(s,111),6.78(dd,J=8.7,1.8Hz,1H),6.85(d, J=8.7,2H),6.86(d,J=1.8Hz,1H),6.94(d,J=8.4Hz,1H),7.46(d,J=8.7Hz,2H) IR(Nujol)3411,1612,1591,1520,1485,1461,1253,1223,1115,1008,971,944,842,810,785cm ⁻¹
1.297	foam 'HNMR(CD ₃ (DD) & 3.38(8,3H),3.68(8,3H),4.73(d,J=5.1Hz,2H),4.23(d,J=5.1Hz,2H),5.83(m,2H),6.43(8,1H),6.79(dd,J=8.7,1.8 Hz,1H),6.85(d,J=8.7,2H),6.86(d,J=1.8Hz,1H),6.94(d,J=8.7Hz,2H) IR(Nujol)3393,1611,1588,1523,1489,1460,1248,1114,1071,1013,940,824cm ⁻¹
1.298	foam 1HNMR(CD ₃ OD) & 1.77(s,3H),3.38(s,3H),3.68(s,3H),4.00(s,2H),5.72(d,J=6.3Hz,2H),5.81(t,J=6.3Hz,1H),6.43(s,1H),6.79(dd, J=8.7,1.8Hz,1H),6.85(d,J=8.7,2H),6.85(d,J=1.8Hz,1H),6.94(d,J=8.4Hz,1H),7.46(d,J=8.7Hz,2H) IR(Nujol)3384,1608,1585,1523,1494,1457,1262,1242,1227,1116,1078,1008,985,822,781cm ⁻¹
1.299	foam 'HNMR(CD ₃ OD)
1.300	foam 'HNMR(CDCl ₃) & 1.87(8,3H),2.10(8,3H),3.45(8,3H),3.74(8,3H),4.68(8,2H),4.71(d,J=6.0Hz,2H),5.77(t,J=6.0Hz,1H),6.44(8,1H),6.92(d,J=8.0Hz,2H),6.95(m,2H),7.07(brs,1H),7.53(d,J=6.0Hz,2H) IR(Nujol)3409,1724,1612,1587,1623,1489,1460,1239,1114,1071,1012,940,825,781cm ⁻¹

Table 63

55

	45	40	35	30	25	20	15	10	5
1-301	foam HINMR(CD ₃ (OD)) & 2.93(d,J=2.1Hz,H),3.38(s,3H),3.68(s,3H),4.06(dd,J=9.9,7.8Hz,=7.8,3.6,2.1Hz,HH),6.44(s,1H),6.80(dd,J=8.4,1.8Hz,HH),6.85(d,J=8.7,2H),6.87(d,J=18.7Hz,2H) 8.7Hz,2H) 1R(Nujol)3282,1655,1612,1588,1523,1489,1460,1254,1226,1072,1013,940,825cm ⁻¹) 6 2.93(d,J=2. H),6.44(s,1H),6	1Hz, 1H), 3.38(s .80(dd, J=8.4, 1 1523, 1489, 146	.8Hz, 1H), 6.8 .8Hz, 1H), 6.8	11),4.06(dd,J=5(d,J=8.7,211)	=9.9,7.8Hz,1H),6.87(d,J=1.8F	,4.20(dd,J=9. 4z,1H),6.96(d	3.(11) δ 2.93(d, J=2.111z, 111), 3.38(s, 311), 3.68(s, 311), 4.06(dd, J=9.9, 7.8Hz, 1H), 4.20(dd, J=9.9, 3.6Hz, 1H), 4.74(ddd, JHz, 1H), 6.41(s, 1H), 6.80(dd, J=8.4, 1.8Hz, 1H), 6.85(d, J=8.7,2H), 6.87(d, J=1.8Hz, 1H), 6.96(d, J=8.4Hz, 1H), 7.46(d, J=82.1655, 1612, 1588, 1523, 1489, 1460, 1254, 1226, 1072, 1013, 940, 825cm ⁻¹	dd,J
1-302	foum IINMR(CDaOD) J=1.8Hz,1H),6.99 IR(Nujol)3474,33	(40D) 3 3.30(s,311),3.68(s,311),4.75(d,J=5.111z,211),6.44(s,111),6.80(dd,J=8.4,1.8Hz,1H), 1,6.99(d,J=8.7Hz,1H),7.42(t,J=5.1Hz,1H),7.46(d,J=8.4Hz,2H) 14.3316,1678,1611,1584,1523,1487,1458,1268,1231,1115,1171,1011,942,824,758cm ⁻¹	3.68(s,311),4.76),7.42(t,J=5.11 584,1523,148	5(d,J=5.111z,2 Hz,1H),7.46(c 7,1458,1268,	11),6.44(e,111 1,J=8.4Hz,2H 1231,1115,11),6.80(dd,J=8.4)) 71,1011,942,83	4,1.8Hz,1H),6	fourn 11 NMR(CD ₂ OD) δ 3.30(s,311),3.68(s,311),4.75(d,J=5.111z,211),6.44(s,111),6.80(dd,J=8.4,1.8Hz,1H),6.85(d,J=8.4,2H),6.92(d, J=1.8Hz,1H),6.99(d,J=8.7Hz,1H),7.42(t,J=5.1Hz,1H),7.46(d,J=8.4Hz,2H) (R(Nujol)3474,3316,1678,1611,1584,1523,1487,1458,1268,1231,1115,1171,1011,942,824,758cm ⁻¹)2(d,
-303	foam 111NMR(C:D:3OD) & 1.24(d,J=7.2Hz,3H),3.38(s,3H),3.68(s,3H),4.12(q,J=7.2Hz,2H), =8.4,1.8Hz,1H),6.85(d,J=8.7,2H),6.91(d,J=1.8Hz,1H),6.99(d,J=8.4Hz,2H),7.46(d,J= 1R(Nujol)3306,1715,1612,1587,1523,1487,1460,1266,1232,1115,1070,824,760cm ⁻¹	,OD)) δ 1.24(d,J=7.2Hz,3H),3.38(s,3H),3.68(s,3H),4.12(q,J=7.2Hz,2H),4.75(d,J=4.8Hz,2H),6.43(s,1H) H),6.85(d,J=8.7,2H),6.91(d,J=1.8Hz,1H),6.99(d,J=8.4Hz,2H),7.46(d,J=8.7Hz,2H),7.52(t,J=4.8Hz,1H) 96.1715,1612,1587,1523,1487,1460,1266,1232,1115,1070,824,760cm ⁻¹	2Hz,3H),3.38(s ,,6.91(d,J=1,8F 523,1487,146(,3H),3.68(9,3 Hz,1H),6.99(d	H),4.12(q,J=7 ,J=8.4Hz,2H) 115,1070,824	'.2Hz,2H),4.75),7.46(d,J=8.7I	(d,J=4.8Hz,2l Hz,2H),7.52(t,	,OD)) δ 1.24(d,J=7.2Hz,3H),3.38(s,3H),3.68(s,3H),4.12(q,J=7.2Hz,2H),4.75(d,J=4.8Hz,2H),6.43(s,1H),6.80(dd,J H),6.85(d,J=8.7,2H),6.91(d,J=1.8Hz,1H),6.99(d,J=8.4Hz,2H),7.46(d,J=8.7Hz,2H),7.52(t,J=4.8Hz,1H) 96.1715,1612,1587,1523,1487,1460,1266,1232,1115,1070,824,760cm ⁻¹	L, bb
-304	foum 1HNMR(CDCl ₃) & 2.34(8,3H, d,J=7.8Hz,1H),7.06(8,1H),7.1 .1Hz,1H),7.68(d,J=8.7Hz,2H) IR(KBr)1611,1518,1480,1365	Cl ₃) δ 2.34(s,3H),2.38(s,3H),2.70(e,3H),3.07(s,3 H),7.06(s,1H),7.18(d,J=8.4Hz,1H),7.28(d,J=7.8H :8(d,J=8.711z,2H) i,1518,1480,1365,1177,1151,1080,876,816cm ⁻¹	38(e,3H),2.70(i, ,J=8.4Hz,1H),	8,3H),3.07(8,8 7.28(d,J=7.81 876,816cm-1	3H),3.21(8,3H Hz,1H),7.36(d),3.56(8,3H),3.	78(s,3H),5.13	fourn 1. HNMIR(CDCl ₃) & 2.34(8,3H),2.38(8,3H),2.70(8,3H),3.07(8,3H),3.21(8,3H),3.56(8,3H),3.78(8,3H),5.13(8,2H),6.84(8,1H),7.03(4,J=7.8Hz,1H),7.06(8,1H),7.18(4,J=8.4Hz,1H),7.28(4,J=7.8Hz,1H),7.36(4d,J=2.1,8.4Hz,1H),7.38(4,J=8.7Hz,2H),7.40(4,J=2.1,8.4Hz,1H),7.68(4,J=8.7Hz,2H),7.40(4,J=2.1,8.4Hz,1H),7.68(4,J=8.7Hz,2H),7.40(4,J=2.1,8.4Hz,1H),7.68(4,J=8.7Hz,2H),7.1151,1080,876,816cm ⁻¹	.03(J=2
-305	foam 'HNMR(CDCl ₃) & 1.25(d,J=6.9Hz,6H),2.67(s,3H),2.93(q,J=6),6.84(s,1H),7.16(d,J=8.7Hz,1H),7.26(d,J=8.4Hz,2H),7.34(dc)(d,J=8.4Hz,2H) IR(KBr)1609,1519,1481,1365,1177,1151,1080,875,819cm ⁻¹	1.25(d,J=6.9H d,J=8.7Hz,1H), 9,1481,1365,11	[z,6H),2.67(e,3 7.26(d,J=8.4H 77,1161,1080,8	iH),2.93(q,J== z,2H),7.34(dt 875,819cm ⁻¹	6.9Hz,1H)3.1: 1,J=2.4,8.7Hz	3(e,3H),3.21(e,	3H),3.56(e,3H	foam 'HNMR(CDCl ₃) & 1.25(d,J=6.9Hz,6H),2.67(s,3H),2.93(q,J=6.9Hz,1H)3.13(s,3H),3.21(s,3H),3.56(s,3H),3.78(s,3H),5.15(s,2H),6.84(s,1H),7.16(d,J=8.7Hz,1H),7.26(d,J=8.4Hz,2H),7.34(dd,J=2.4,8.7Hz,1H),7.38(d,J=8.4Hz,4H),7.40(d,J=2.4Hz,1H),7.68 (d,J=8.4Hz,2H) IR(KBr)1609,1519,1481,1365,1177,1151,1080,875,819cm ⁻¹	,2H 7.68

Table 64

1-306	foam HINMR(CDCh.) & 2.62(a,3H),3.15(a,3H),3.21(a,3H),3.55(a,3H),3.77(a,3H),5.36(a,2H),6.84(a,1H),7.18(d,J=8.7Hz,1H),7.26(a, HI),7.33(dd,J=2.1,8.4Hz,1H),7.38(d,J=8.7Hz,2H),7.41(d,J=2.1Hz,1H),7.51(m,2H),7.57(dd,J=1.8,8.4Hz,1H),7.68(d,J=8.7Hz,2H),7.34-7.93(m,4H) HR(KBr)1608,1519,1480;1364,1177,1151,1079,876,819,797cm ⁻¹
1.307	
1-308	foam 'HNMR(CDCl ₃)
1-309	m.p.221-222°C 'HNMR(CDCl ₃) ô 2.36(s,3H),2.38(s,3H),3.46(s,3H),3.75(s,3H),5.09(s,2H),6.45(s,1H),6.92(d,J=8.4Hz,2H),6.98(dd,J=2.1,8.1 Hz,1H),7.06(d,J=8.4Hz,1H),7.08(d,J=2.1Hz,1H),7.08(s,1H),7.28(d,J=8.4Hz,1H),7.53(d,J=8.4Hz,2H) IR(KBr)3475,1610,1522,1489,1402,1245,1181,1164,1110,1071,821,805cm ⁻¹
1.310	m.p.153-155°C ¹ HINMR(CDCl ₃) δ 1.27(d,J=6.9Hz,6H),2.95(q,J=6.9Hz,1H),3.45(s,3H),3.74(s,3H),5.11(s,2H),6.45(s,1H),6.91(d,J=8.4Hz,2H), ⁶ .96(dd,J=2.1,8.1Hz,1H),7.03(d,J=8.1Hz,1H),7.08(d,J=2.1Hz,1H),7.28(d,J=8.1Hz,2H),7.38(d,J=8.1Hz,2H),7.53(d,J=8.4Hz,2H), ² H) ² IR(KBr)3486,1611,1522,1489,1265,1113,1072,1011,823cm ⁻¹

Table 65

55

<i>50</i> .	45	40	35	30	25	20	15	10	5
1.311	m.p. 176-177°C '!!INMR(CDC!3) & 3.45(s,311),3.75(s,311),5.32(s,211),6.45(s,111),6.91(d,J=8.4Hz,211),6.97(dd,J= '!!!),7.10(d,J=2.1Hz,111),7.53(d,J=8.4Hz,211),7.50-7.57(m,311),7.82-7.92(m,441) !!!(KBr)3476,1610,1522,1488,1469,1401,1263,1246,1173,1112,1073,1014,1002,819,806cm ⁻¹	7°C)(3;1) & 3.45(s,311),3.75(s,311),5.32(s,211),6.45(s,111),6.91(d,J=8.411z,211),6.97(dd,J=2.1,8.4Hz,111),7.06(d,J=8.4Hz, ,J=2.1Hz,111),7.53(d,J=8.411z,211),7.50-7.57(m,311),7.82-7.92(m,411) 76,1610,1522,1488,1469,1401,1263,1246,1173,1112,1073,1014,1002,819,806cm ¹	75(8,311),5.32(,J=8.4112,211), 469,1401,1263	s,211),6.45(s,17.50-7.57(m,3	HI),6.91(d,J= HI),7.82-7.92 HI2,1073,101	8.411z,2H),6.97 (m,4H) 4,1002,819,800	(dd,J=2.1,8.4	Hz,1H),7.06(d,	J=8.4Hz
L312	m.p.235-237°C HINMR(CDCL) & 3.44(s,3H),3.73(s,3H),5.49(s,2H),6.92(d,J=8.4Hz,2H),6.93(dd,J=2.1,8.4Hz,1H),7.14(d,J=2.1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,1Hz,	7°C)(3,3) \$\tilde{3} \text{ 3.44(\$\text{ 3.H}), 3.73(\$\text{ 3.H}), 5.49(\$\text{ 5.41}), 6.44(\$\text{ 4.H}), 6.92(\$\text{ 4.J=8.4H}]\$,J=8.4Hz, 1H), 7.38(\$\text{ 4.J=8.4Hz, 1H}), 7.52(\$\text{ 4.J=8.4Hz, 2.H}), 7.58(\$\text{ 4.J}]=\$\text{ 1.2Hz, 1H})\$ 1),8.21(\$\text{ 4.J=7.2Hz, 1H}),8.22(\$\text{ 4.J=7.2Hz, 1H})\$ 18,1609,1522,1488,1268,1229,1205,1114,1072,1016,825,782cm ⁻¹	73(8,3H),5.49((,J=8.4Hz,1H),;),8.22(d,J=7.2,368,1229,1205,	8,2H),6.44(8,17.52(d,J=8.41H2,1H)),6.92(d,J= z,2),7.58(d	8.4Hz,2H),6.93 d,J=7.2,7.2Hz, m ⁻¹	(dd,J=2.1,8.4	Hz,1H),7.14(d,	J=2.1Hz),7.86(d,
1-313		(C ₁₃) δ 3.45(8,3H),3.75(8,3H),5.22(8,5) (d,J=8.4Hz,2H),7.68(d,J=8.4Hz,2H), 3,1613,1523,1490,1326,1251,1166,1	75(9,3H),5.22((d,J=8.4Hz,2F 126,1251,1166	s,2H),6.45(s,] H), 1113,1066,10	1H),6.92(d,J=	8.4Hz,2H),6.90	(br.a,2H),7.1	1(br.s, 1H), 7.53	(d,J=8.4
1.314	m.p.92-93°C !HNMR(CDCl ₃) & 1.63(8,3H),1.74(8,3H),2.34-2.39(m,1H),2.67-2 m,2H),6.78-6.97(m,4H),7.20(d,J=7.2Hz,1H),7.56(d,J=8.0Hz,2H) IR(KBr)3410,2932,1613,1519,1473,1444,1390,1263,1228,1174c	OCl3) δ 1.63(8,3H), 1.74(8,3H), 2.34-2.39(m,1H), 2.67-2.72(m,2H), 3.47(8,3H), 3.74(8,3H), 4.52-4.54(m,2H), 5.30-5.33(6.97(m,4H), 7.20(d,J=7.2Hz,1H), 7.56(d,J=8.0Hz,2H) 0.2932, 1613, 1619, 1473, 1444, 1390, 1263, 1228, 1174cm ⁻¹	74(8,3H),2.34-5 =7.2Hz,1H),7.8 73,1444,1390,	2.39(m,1H),2. 56(d,J=8.0Hz, 1263,1228,11	67-2.72(m,2F ,2H) 74cm ⁻¹	1),3.47(s,3H),3.	74(8,3H),4.52	-4.54(m,2H),5.	30-5.33(
1.315	m.p.85-86°C ¹ HNMR(CDCl ₃) ô 1.76(8,3H),1.83(8,3H),2.17-2.40(m,1H),2.65-2.7),6.70(8,1H),7.28-7.43(m,5H),7.73(d,J=8.6Hz,2H) ¹ IR(KBr)3432,2938,1731,1513,1469,1366,1180,1151,970,868cm ⁻¹	Cl ₃) δ 1.76(8,3H), 1.83(8,3H), 2.17-2.40(m,1H), 2.65-2.71(m,2H), 3.24(8,3H), 3.46(8,3H), 3.80(8,3H), 4.50-4.52(m,2H), 7.28-7.43(m,5H), 7.73(d,J=8.6Hz,2H) 2,2938,1731,1513,1469,1366,1180,1151,970,868cm ⁻¹	83(s,3H),2.17.5 3(d,J=8.6Hz,2] 69,1366,1180,	2.40(m,1H),2. H) 1151,970,868	.65-2.71(m,2F	f),3.24(a,3H),3	46(s,3H),3.80	(8,3H),4.50-4.5	12(m,2H

Table 66

	m.p.179.180°C
	111NMR(CDCl ₃) & 1.72(s,311),1.76(s,311),2.15-2.35(m,111),2.61-2.70(m,211),3.46(s,311),3.76(s,311),4.47-4.50(m,211),6.68(s,111
98:-1),7.17-7.52(m,5H),7.69(d,J=8.4Hz,2H)
	IR(KBr)3427,2934,1612,1576,1519,1465,1443,1415,1376,1228,1174,846cm '
	m.p.141-142°C
	"HNMR(CDCha) & 1.75(8,3H), 1.80(8,3H), 3.21(8,3H), 3.39(8,3H), 3.68(8,3H), 3.77(8,3H), 4.61(d,J=7.2Hz,2H), 5.50(t,J=7.0Hz,1H
/ 15:-1),6.93(s,111),6.99.7.33(m,511),7.57-7.65(m,211)
	IR(KBr)3432,2938,1724,1519,1474,1365,1346,1294,1262,1244,1220,1163,1119,1059,953,842,805cm ⁻¹
	m.p.127·128°C
3	"IINMR(CDCL3) & 1.68(s,3H),1.74(s,3H),2.54(dt,J=4.2,4.6Hz,2H),3.20(s,3H),3.39(s,3H),3.68(s,3H),3.76(s,3H),4.05(t,J=4.4H
1-318	z,2H),5.21(t,J=4.6Hz,1H),6.93(s,1H),7.00(d,J=5.6Hz,1H),7.11·7.18(m,2H),7.25·7.35(m,3H),7.61(dd,J=3.8,5.8Hz)
	IR(KBr)3447,2974,2940,1740,1519,1471,1365,1343,1295,1262,1226,1182,1161,1119,1058,952,843,814cm ⁻¹
	m.p.171·172°C
9.0	111NMR(CDCl ₃) & 2.38(8,311),3.10(8,311),3.39(8,311),3.66(8,311),3.77(8,311),5.11(8,211),6.93(8,111),7.07·7.36(m,911),7.61(dd,J=
1-019	3.4,5.6Hz,2H)
	IR(KBr)3431,2937,1724,1519,1474,1440,1346,1296,1259,1243,1222,1165,1121,1060,953,843,804cm ⁻¹
	m.p.166·156°C
000	1HNMR(CDCl ₃) 6 3.40(8,3H),3.69(8,3H),3.77(8,3H),5.13(8,2H),5.70(brs,1H),6.82-7.42(m,5H),7.39-7.42(m,5H),7.62(dd,J=5.4
026-1	,8.6Hz)
	IR(KBr)3550,3481,2956,1723,1519,1467,1435,1344,1285,1261,1238,1223,1130,1058,1013,840cm ⁻¹

Table 67

55

m.p.189-160°C 'IINMIR(:I)CCL, 6 3.11(e,311),3.40(e,311),3.76(e,311),3.77(e,311),5.16(e,211),6.93(e,111),7.07.7.40(m,611),7.62(dd,J=3.0,8.41z,2.11) IRR(Rh);3.411,2952,1732,1519,1465,1381,1386,1342,1291,1273,1243,1226,1162,1119,1081,1057,999,950,942,805cm- m.p.160-161°C "IINMIR(:I)CCL, 1, 6 2.37(e,311),2.93(e,311),3.12(e,311),3.56(e,311),3.70(e,311),5.23(e,211),6.86(e,111),7.20(d,J=8.1Hz,211),7.36-7.41(m,211),7.36-7.70(m,211),7.36(e,311),3.70(e,311),3.70(e,311),5.23(e,211),6.86(e,111),7.20(d,J=8.1Hz,211),7.36-7.41(m,211),3.13(e,311),3.54(e,311),3.70(e,311),3.70(e,311),5.10(e,311),6.86(e,111),7.20(d,J=8.1Hz,211),7.36-7.70(m,211) IRC(CL);30227,2940,1692,1473,1372,1228,1178,1151,1084cm-1 powder 'HNMR(CDCI;) 6 1.89-1.98(crs.1H),2.39(e,311),3.46(e,311),3.76(e,311),5.01(e,311),5.46(e,111),6.46(e,111) IRC(CL);3026,2939,1475,1372,1228,1178,1151,1084cm-1 powder 'HNMR(CDCI;) 6 2.31(e,311),2.88(e,311),3.28(e,311),3.51(e,311),3.74(e,311),5.23(e,211),6.83(e,111),7.11.7.18(m,211),7.11.7.18(m,211),7.32.7.74(m,411),7.62.7.68(m,311),8.03(e,111),7.11.7.18(m,211),7.11.7.18(m,211),7.32.7.74(m,411),7.62.7.68(m,311),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.03(e,111),8.	50	1.321	1.322	1.323 d	924 L	.326 7.
3.11(e, 311),3.40(e, 311),3.66(e, 311),3.77(e, 311),5.16(e, 211),6.93(e, 111),7.07.7.49(m, 611),7.62(dd, J=3.0,8.4Hz, 1.2.732,1519,1469,1445,1381,1356, 1342,1291,1273,1243,1226,1162,1119,1081,1067,999,960,842,805em 1.2.37(e, 311),2.93(e, 311),3.19(e, 311),3.22(e, 311),3.19(e, 311),3.19(e, 311),3.19(e, 311),3.22(e, 311),3.19(e, 311),3.22(e, 311),3.19(e, 311),3.119(e, 311),3.119(e, 311),3.119(e, 311),3.119(e, 311),3.119(e, 311),3.119(e, 311),3.119(e, 311),3.119(e, 311),3.1119(e, 311),3.119(e, 311),3.1119(e, 311),3.1119(e, 311),3.111111111111111111	45	m.p.159-160°C HINMR(CDCEs) & H) IR(KBr)3441,2952	m.p.160-161 C HINMR(CDCl ₃) δ 2H),7.30(d,J=8.1H IR(CHCl ₃)3027,29	powder !HNMR(CDCl ₃) δ d,J=7.8Hz,2H),7.35 <u>IR(CHCl₃)302</u> 6,298	powder !HNMR(CDCl3) δ ,6.45-6.95(m,2H),7 !R(CHCl3)3514,293	powder HINMR(CDC) ₃) δ 2 7.32-7.41(m,4H),7.6 IR(CHC)3)3026,293
69. 1445, 1381, 1356, 1342, 1291, 1273, 1243, 1226, 1119, 1081, 1057, 999, 950, 842, 805cm (69. 311), 3. 77(6, 311), 5. 16(6, 211), 6. 93(6, 111), 7. 07. 7. 49(m, 511), 7. 62(dd, J=3.0, 8.4 Hz, 13. 1227, 1135, 1342, 1221, 1122, 1112, 1081, 1057, 999, 950, 842, 805cm (69. 311), 3. 19(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 22(6, 311), 3. 24(6, 211), 6. 34(6, 211), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 36(6, 111), 6. 311, 3. 34(6, 311), 3. 34(6, 311), 3. 54(6, 311), 3. 54(6, 311), 5. 23(6, 211), 6. 83(6, 111), 7. 11. 7. 18(m, 211), 3. 34, 1227, 1179, 1129, 1085cm (7)	40	3.11(a,3H),3.40	2.37(8,3H),2.9 [z,2H),7.36-7.4] 40,1692,1473,1	2.37(s,3H),2.8 2-7.44(m,6H),7 39,1475,1372,1	1.89-1.98(brs, 1 7.05(s, 2H), 7.24 37, 1731, 1613, 1	2.31(s,3H),2.88 62-7.68(m,3H), 19,1742,1472,13
31D).3. 27(a, 31l), 5. 16(a, 21l), 6. 93(a, 11l), 7.07-7. 49(m, 51l), 7.62(dd, J=3.0,8.4Hz, 7.11), 7. 1243, 1226, 1162, 1119, 1081, 1067, 999, 960, 842, 800cm ⁻¹ 2.1086cm ⁻¹ 2.1086cm ⁻¹ 2.1086cm ⁻¹ 3.45(a, 3H), 3.54(a, 3H), 3.79(a, 3H), 6.23(a, 2H), 6.86(a, 1H), 7.20(d, J=8.1Hz, 1.1084cm ⁻¹ 3.45(a, 3H), 3.75(a, 3H), 4.77(a, 2H), 6.01(a, 3H), 5.46(a, 1H), 5.99(a, 1H), 6.45(a, 1H), 7.21(a, 1.113, 1082cm ⁻¹ 3.45(a, 3H), 3.75(a, 3H), 4.77(a, 2H), 5.01(a, 3H), 5.46(a, 1H), 5.99(a, 1H), 6.45(a, 1H), 7.21(a, 1.113, 1082cm ⁻¹ 3.45(a, 3H), 3.51(a, 3H), 3.74(a, 3H), 5.23(a, 2H), 6.83(a, 1H), 7.11-7.18(m, 2H), 1.1129, 1086cm ⁻¹	35	0(м,3II),3.66(в.	3(8,311),3.19(8 1(m,2H),7.64-7 1373,1227,115	6(s,3H),3.13(s,65-7.70(m,2H	H),2.39(s,3H), (d,J=8.1Hz,2H 522,1484,1403	(s,3H),3.07(s,3 8.03(s,1H) 374,1227,1179
75. 16(a, 211), 6.93(a, 111), 7.07-7.49(m, 511), 7.62(dd, J=3.0, 8.4Hz, 5.1, 1273, 1243, 1226, 1162, 1119, 1081, 1057, 999,950,842,805cm-7.356(a, 311), 3.79(a, 311), 5.23(a, 211), 6.86(a, 111), 7.20(d, J=8.114z, 1(d, J=2.11z, 111), 10.16(a, 111)) 7.3.55(a, 311), 3.79(a, 311), 4.64(a, 211), 10.16(a, 111), 6.45(a, 111), 7.21(a, 211), 7.2	30	3H),3.77(s,3H) 1356,1342,129	,3H),3.22(8,3H 7.70(m,2H),7.7- 2,1085cm ⁻¹	,3H),3.21(s,3H;) 1,1084cm ⁻¹	3.45(8,3H),3.76),7.38(d,J=8.11 8,1228,1173,10	1H),3.22(8,31I),
3(a, 111), 7.07-7.49(m, 511), 7.62(dd, J=3.0, 8.4Hz,; 226, 1162, 1119, 1081, 1057, 999, 950, 842, 805cm 79(a, 311), 5.23(a, 211), 6.86(a, 111), 7.20(d, J=8.114z, 1), 7.83(d, J=2.114z, 111), 10.16(a, 111) 24), 5.01(a, 311), 5.46(a, 111), 5.99(a, 111), 6.45(a, 111, 7.21(a, 211)) 56(m, 211) (a, 311), 5.23(a, 211), 6.83(a, 111), 7.11-7.18(m, 211), 1(a, 311), 5.23(a, 211), 6.83(a, 111), 7.11-7.18(m, 211),	25	,5.16(e,211),6.9 1,1273,1243,1:),3.55(8,3H),3.'),3.54(8,3H),3.?	i(s,3H),4.77(s,5 Hz,2H),7.50-7.1 82cm ⁻¹	3.51(6,311),3.7
79 (m, 511), 7.62(dd, J=3.0,8.4Hz,; 1081, 1067, 999, 950, 842, 805cm, 211), 6.86(s, 1H), 7.20(d, J=8.1Hz, 12H), 10.16(s, 1H) 2H), 5.11(a, 2H), 6.85(s, 1H), 7.21(5.46(s, 1H), 5.99(s, 1H), 6.45(s, 1H), 14.6.83(s, 1H), 7.11-7.18(m, 2H),	20	3(s, 111), 7.07-7	/9(s,311),5.23(s	9(8,3H),4.64(8	.H),5.01(8,3H),	(e,3H),5.23(e,2
7.62(dd,J=3.0,8.4Hz,; 7.999,950,842,805cm 8,1H),7.20(d,J=8.1Hz, 16(s,1H) 8,2H),6.85(s,1H),7.21(15	.49(m,6H),	,2H),6.86(Hz,1H),10	,2H),5.11(5.46(s, 1H)	2H),6.83(e,
1,J=3.0,8.4Hz,; 60,842,805cm 20(d,J=8.1Hz, H) .20(d,J=8.1Hz, 11),6.45(s,1H, 11-7.18(m,2H),	10	,7.62(dc	(8,1H),7	8,2H),6	, 5.99(в	1H),7.1
		1,J=3.0,8.4Hz,5	.20(d,J=8.1Hz,	.85(s, 1H),7.21(,1H),6.45(s,1H	1-7.18(m,2H),

Table 68

1-326	powder HINMR(CD ₃ OD) & 2.33(s,3H),3.38(s,3H),5.68(s,3H),6.11(s,2H),6.44(s,1H),6.82-6.88(m,2H),6.99(d,J=1.8Hz,1H),7.13-7.19(m,3H),7.42-7.50(m,4H)
	1K(KBF)3411,2939, 1080, 1011, 1020, 1407, 1104, 1204, 1200, 11111111
1.327	powder "HNMR(CDCl ₃) & 1.72(s,3H),1.79(s,3H),3.12(s,3H),3.21(s,3H),3.27(s,3H),3.52(s,3H),3.53(s,3H),4.81(d,J=7.5Hz,2H),5.51(m, 1H),7.38-7.43(m,2H),7.45-7.50(m,2H),7.80(d,J=2.1Hz,1H),7.97(d,J=2.1Hz,1H) IR(CHCl ₃)3032,2941,1543,1377,1209cm ⁻¹
	m p 205-206°C
	11111111111111111111111111111111111111
I.328	95(m,2H),7.28-7.34(m,2H),7.38-7.40(m,1H),7.99(d,J=2.1Hz,1H),10.83(d,J=0.6Hz,1H) IR(KBr)3476,2940,1614,1532,1371,1238,1094,1035cm ⁻¹
	m.p.144-146°C IIINMR(CDCl ₃) δ 2.83(s,3H),3.22(s,3H),3.28(s,3H),3.55(s,3H),3.79(s,3H),6.86(s,1H),7.37-7.45(m,3H),7.47-7.53(m,3H),7.65-
1.329	7.70(m,2H) IR(KBr)3434,3019,2939,1515,1480,1370,1176,1150,1081cm ⁻¹
	amorphous HNMR(CDCl ₃) & 1.68(s,3H),1.74(s,3H),2.54(q,J=7.2Hz,2H),3.21(s,3H),3.41(s,3H),3.65(s,3H),3.77(s,3H),4.03(t,J=7.2Hz,2H
1.330	1.330),5.23(t,J=7.2Hz,1H),6.94(s,1H),6.98(t,J=8.6Hz,1H),7.05(ddd,J=8.6,2.1,0.9Hz,1H),7.14(dd,J=12.0,2.1Hz,1H),7.38(d,J=8.7H
	Z,ZH,, f. 1 (q,u=0.1112, 121, 1471, 1375, 1262, 1230, 1150, 1061, 874cm ⁻¹ IR(CHCl ₃) 1732, 1521, 1471, 1375, 1262, 1230, 1150, 1061, 874cm ⁻¹

Table 69

m.p.146-148°C HINMR(CDCB.) & 1.56(s,3H), 1.80(s,3H), 3.21(s,3H), 3.41(s,3H), 3.77(s,3H), 4.61(d,J=6.9Hz,2H), 5.54(t,J=6.9Hz,1H), 6.94(z,1H), 6.94(z,1H), 7.38(d,J=8.7Hz,2H), 7.71(d,J=8.7Hz,1H), 7.38(d,J=8.7Hz,2H), 7.71(d,J=8.7Hz,1H), 7.14(dd,J=12.0,2.4Hz,1H), 7.38(d,J=8.7Hz,2H), 7.71(d,J=8.7Hz,1H), 7.14(dd,J=12.0,2.4Hz,1H), 7.38(d,J=8.7Hz,2H), 7.71(d,J=8.7Hz,1H), 7.14(dd,J=7.0Hz,2H), 5.48(t,J=7.0Hz,1H), 6.87(d,J=8.9Hz,2H), 7.00(s,1H), 7.03(ddd,J=8.7,2.3,0.9Hz,1H), 7.10(dd,J=12.3,2.3Hz,1H), 7.18(t,J=8.7Hz,1H), 7.48(d,J=8.9Hz,2H), 9.60(s,1H), 1.48(d,J=8.7,2.3,0.9Hz,1H), 7.10(dd,J=12.3,2.3Hz,1H), 7.18(t,J=8.7Hz,1H), 7.48(d,J=8.9Hz,2H), 9.60(s,1H), 7.48(d,J=8.7,2.3,0.9Hz,1H), 7.48(d,J=8.
2.9(brs,1H) IR(KBr)3258,1687,1615,1523,1465,1373,1260,1233,1057,994,835,823cm ⁻¹ m.p.172-174°C 'HNMR(CDCl ₃) & 3.21(a,3H),3.41(a,3H),3.77(a,3H),5,17(a,2H),6.94(a,1H),7.01-7.04(m,2H),7.13-7.18(m,1H),7.33-7.49(m,7H),7.70(d,J=9.0Hz,2H) IR(KBr)1725,1522,1463,1346,1261,1230,1147,1058,878,756cm ⁻¹ m.p.149-151°C 'HINMR(CDCl ₃) & 2.36(a,3H),3.21(a,3H),3.41(a,3H),3.61(a,3H),3.77(a,3H),5,13(a,2H),6.93(a,1H),7.00-7.03(m,2H),7.12-7.17(m,1H),7.20(d,J=8.4Hz,2H),7.38(d,J=8.7Hz,2H),7.38(d,J=8.7Hz,2H),7.70(d,J=8.7Hz,2H) IR(KBr)1731,1519,1472,1370,1298,1152,1058,874,791cm ⁻¹

162

Table 70

	m.р.173-174°C HINMR(DMSO-da) δ 1.64(s,3H),1.70(s,3H),2.45(q,,1=6.9Hz,2H),3.31(s,3H),3.73(s,3H),4.04(t,J=6.9Hz,2H),5.22(t,J=6.9Hz,1
1.335	11), 6.87(d, J=8.711z, 211), 6.99(a, 111), 7.03(ddd, J=8.7, 2.1, 0.9Hz, 111), 7.10(dd, J=12.3, 2.111z, 111), 7.16(t, J=8.7Hz, 111), 7.48(d, J=8.7
	Hz,2H),9.61(s,1H),12.9(hrs,1H)
	IR(KBr)3303, 1696, 1523, 1473, 1371, 1261, 1241, 1061, 1009, 839cm
	m.p.222-224℃
	111NMR(DMSO-da) & 3.31(9,311),3.73(9,311),5.20(8,211),6.87(d,J=8.7112,211),7.00(8,111),7.03-7.07(m,111),7.13(dd,J=12.3,2.111
1-336	z, 111), 7.26(t, J=8.7Hz, 111), 7.36-7.52(m, 711), 9.61(s, 111), 12.9(brs, 111)
	IR(KBr)3268, 1689, 1523, 1465, 1374, 1261, 1055, 836cm 1
	m.p.205-206°C
	1HNMR(DMSO-dis) & 2.32(8,3H),3.31(8,3H),3.72(8,3H),5.15(8,2H),6.87(d,J=8.7Hz,2H),6.99(8,1H),7.04(ddd,J=9.0,1.9,0.9Hz,
1.337	1H),7.12(dd,J=12.3,1.9Hz,1H),7.23(d,J=8.0Hz,2H),7.24(t,J=9.0Hz,1H),7.38(d,J=8.0Hz,2H),7.48(d,J=8.7Hz,2H),9.60(a,1H),
	12.9(brs,1H)
	IR(KBr)3303, 1696, 1523, 1464, 1261, 1241, 1056, 993, 838, 811, 791cm · 1
	m.p.120.121°C
	$ HNMR(CDCl_3) \delta 3.13(9,3H), 3.50(9,3H), 3.78(9,3H), 5.08(9,1H), 5.20(9,2H), 6.90(m,2H), 7.09(9,1H), 7.15-7.19(m,3H), 7.37-7.50(1,2H)$
1.338	m,5H),7.56(dd,J=10.8,2.1Hz,1H),7.64(d,J=2.4Hz,1H),9.90(s,1H)
	$1R(\mathrm{KBr})3460,2934,1694,1609,1585,1518,1467,1442,1348,1295,1273,1255,1238,1171,1123,1075,1003,960,828,807,755,700,$
	653,582,522cm ⁻¹
	m.p.256-258°C
-	1 HNMR(1)MSO- 1 6 3.34(8,3H),3.35(8,3H),3.72(8,3H),5.28(8,2H),6.75(4,J=8.1Hz,2H),7.05-7.11(m,3H),7.36-7.45(m,4H),7.5
1-339	3(d,J=8.1Hz,2H),7.60-7.66(m,2H),9.44(s,1H),12.84(s,1H)
	IR(KBr)3459,2940,2563,1706,1612,1522,1469,1349,1294,1258,1185,1114,1082,1063,1000,961,919,827,756,699,524cm

Table 71

	m.p.165-166°C
1.340	111NMR(CDCM) § 3.14(s,3H),3.19(s,3H),3.51(s,3H),3.76(s,3H),5.21(s,2H),7.11(s,1H),7.17(d,J=8.4Hz,1H),7.29-7.50(m,9H),7.57(dd,J=8.1,2.1Hz,1H),7.65(d,J=2.1Hz,1H),10.02(s,1H)
	m.p. 195-197°C
-	111NMR(CDCl3) \$\delta \ 3.13(s, 3H), 3.18(s, 3H), 3.47(s, 3H), 3.77(s, 3H), 5.20(s, 2H), 6.97(s, 1H), 7.17(d, J=8.7Hz, 1H), 7.30-7.50(m, 9H), 7.
-	58(dd,J=8.7,1.8Hz,1H),7.67(d,J=1.8Hz,1H) 1R(CHCl ₃)2938,1740,1707,1601,1516,1472,1371,1293,1260,1174,1149,1117,1082,1060,1002,971,875cm ⁻¹
	m.p.207.209°C
976	'HNMR(CD ₃ OD) δ 3.40(s,3H),3.72(s,3H),5.21(s,2H),6.76(m,2H),6.97(s,1H),7.01-7.17(m,4H),7.31-7.52(m,6H)
1-342	IR(KBr)3366,1705,1612,1591,1522,1473,1434,1375,1253,1234,1130,1084,1061,998,918,864,835,813,792,743,697,648,526c
	m.p.206-208°C
1.949	$^{1}HNMR(CDCl_3) \delta 3.14(s, 3H), 3.48(s, 3H), 3.72(s, 3H), 5.20(s, 2H), 5.48(br, 1H), 6.85-6.89(m, 3H), 7.15-7.19(m, 3H), 7.37-7.51(m, g) \delta + 1.00(m, 3H), 1.15-7.19(m, 3H$
250-1	H),7.56(dd,J=8.4,2.4Hz,1H),7.68(d,J=2.4Hz,1H) IR(CHCl ₃)3320,2938,1612,1520,1474,1371,1292,1257,1172,1120,1090,1005,972,857,837,818cm ⁻¹
	m.p.187-190°C
1 344	1HNMR(CDCl ₃) δ 2.33(s,3H),3.13(s,3H),3.50(s,3H),3.76(s,3H),5.20(s,2H),7.10(s,1H),7.15-7.19(m,3H),7.28-7.50(m,7H),7.56(
***C-1	dd,J=8.7,2.4Hz,1H),7.64(d,J=2.4Hz,1H),9.93(s,1H)
	IN(CITCE)/2930, 2630, 1730, 1030, 1030, 1010, 1400, 1303, 1320, 1100, 1122, 1091, 1003, 902, 912, 646, 6130m

Table 72

	m.p.218-220°C
	111NMR(1)MSO-da) & 2.29(s,3H),3.36(s,3H),3.37(s,3H),3.76(s,3H),5.29(s,2H),7.11-7.16(m,3H),7.31-7.46(m,6H),7.52-7.55(m,
1.345	211),7.62·7.68(m,2H),13.00(br,1H)
	$\Pi(KBF)_{3433}, 2940, 2600, 1757, 1713, 1652, 1611, 1518, 1471, 1365, 1295, 1260, 1216, 1200, 1171, 1117, 1082, 1061, 1022, 998, 975, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 9875, 987$
	16,897,829,804,735,697,525cm ⁻¹
	m.p.206-208°C
3	$ \text{HINMR}(\text{CDCL}_3) \ \delta = 2.31 (\text{s}, 311), 3.13 (\text{s}, 311), 3.45 (\text{s}, 311), 3.58 (\text{s}, 311), 3.76 (\text{s}, 311), 5.19 (\text{s}, 211), 6.95 (\text{s}, 111), 7.08-7.16 (\text{m}, 311), 7.34-7.50 (\text{s}, 311), 3.13 (s$
1.346	m,7H),7.57(dd,J=8.7,2.4Hz,1H),7.67(d,J=2.4Hz,1H)
	IR(CHCl ₃)2939,1732,1613,1699,1518,1468,1371,1290,1169,1117,1081,1064,1004,972,961,905,847,828cm ⁻¹
	m.p.201-203°C
	111NMR(1)MSO-da) & 1.72(s,311),1.76(s,311),3.34(s,311),3.63(s,311),4.51(d,J=4.2Hz,2H),5.49(t,J=4.6Hz,1H),6.66(s,1H),6.76(s,
1:347	211),6.86(s,111),7.23-7.29(m,2H),7.62-7.66(m,2H)
	IR(KBr)3431,2935,1575,1516,1462,1444,1421,1397,1375,1224,1159,1063,837cm ⁻¹
	m.p.265-266°C
9	$! HNMR(I)MSO-d_G) \ \delta \ \ 2.31(8,3H), 3.33(8,3H), 3.62(8,3H), 5.03(8,2H), 6.66(8,1H), 6.72-6.90(m,4H), 7.18-7.28(m,3H), 7.38(d,J=5.2) \ \ (3.31,3.31), 3.33(8,3H), 5.03(8,3H), 6.03(8,1H), 6.72-6.90(m,4H), 7.18-7.28(m,3H), 7.38(d,J=5.2) \ \ (3.31,3.31), 7.38(d,J=5.2), 6.03(m,4H), 6.03(m,4H), 7.18-7.28(m,3H), 7.38(d,J=5.2), 6.03(m,4H), 6.03(m,4H), 7.18-7.28(m,3H), 7.38(m,3H), $
1.348	Hz,2H),7.64(dd,J=4.0,5.4Hz,2H)
	IR(KBr)3428,2925,1575,1516,1463,1442,1396,1374,1248,1221,1129,1087,1068cm ⁻¹
	m.p.262.263°C
	$^{\rm 1} {\rm HNMR}({\rm DMSO}\cdot {\rm d_6}) \ \delta 1.64 ({\rm s}, 3{\rm H}), 1.70 ({\rm s}, 3{\rm H}), 2.43 ({\rm d_t}, {\rm J} = 4.6, 5.0 {\rm Hz}, 2{\rm H}), 3.34 ({\rm s}, 3{\rm H}), 3.62 ({\rm s}, 3{\rm H}), 3.91 ({\rm t}, {\rm J} = 4.8 {\rm Hz}, 2{\rm H}), 5.25 ({\rm t}, {\rm J} = 4.6 {\rm Hz}, 2{\rm Hz}, $
1-04g	Hz,1H),6.70(s,1H),6.75(s,2H),6.87(s,1H),7.23·7.29(m,2H),7.64(dd,J=2.0,5.8Hz,2H)
	IR(KBr)3430,2934,1575,1516,1464,1443,1422,1398,1375,14246,1225,1065,1015cm-1

Table 73

1-350	1HNMR(CDCl ₃) & 1.76(s,3H), 1.81(d,J=0.6Hz,3H),2.54(s,3H),2.73(s,3H),3.23(s,3H),3.54(s,3H),3.77(s,3H),4.63(d,J=6.6Hz,2 11),5.49(m,1H),6.85(s,1H),7.09(d,J=8.4Hz,1H),7.30-7.40(m,4H),7.53-7.59(m,2H) 1R(CHCl ₃)2936,1606,1515,1475,1366,1116,1078,970,875,820cm ¹
1.351	¹ HNMR(CDCl ₃) δ 1.68(s,3H),1.74(d,J=0.9Hz,3H),2.48-2.60(m,5H),2.75(s,3H),3.21(s,3H),3.54(s,3H),3.77(s,3H),4.07(t,J=6.9 Hz,2H),5.21(in,1H),6.85(s,1H),7.07(d,J=8.7Hz,1H),7.30-7.42(m,4H),7.53-7.59(m,2H) IR(CHCl ₃)2928,1607,1517,1476,1367,1267,1118,1080,1014,971,892,822cm ⁻¹
1.352	m.p.201-203°C IIINMR(CDCL ₃) & 3.35(s,3H),3.75(s,3H),3.76(s,3H),5.26(e,2H),6.79-6.83(m,2H),6.97(s,1H),7.01(e,1H),7.31-7.54(m,10H),9.4 5(s,1H) IR(KBr)3600-2800(br),1610,1525,1492,1462,1377,1337,1298,1208,1171,1114,1054,1031cm ⁻¹
I-353	m.p.141-143°C 'HNMR(CDCl3) δ 3.56(s,3H),3.78(s,3H),3.80(s,3H),4.86(s,1H),5.26(s,2H),6.88-6.92(m,2H),6.92(s,1H),6.93(s,1H),7.24-7.29(m,2H),7.36-7.41(m,1H),7.45-7.50(m,2H) IR(KBr)3600-2800(br),1612,1524,1491,1463,1448,1378,1263,1205,1177,1153,1071,1053,1026cm ⁻¹
I-354	m.p.115-115.5°C HNMR(CDCl ₃) δ 3.19(s,3H),3.56(s,3H),3.79(s,3H),5.27(s,2H),6.93(s,1H),6.94(s,1H),7.25-7.27(m,2H),7.32-7.40(m,3H),7.60-7.64(m,2H) IR(KBr)3600-2800(br),1524,1492,1463,1379,1266,1210,1174,1154,1126,1082,1053,1029cm ⁻¹
1-355	m.p.139-140°C ¹ HNMR(CDCl ₃) δ 1.77(d,J=0.6Hz,3H),1.81(d,J=0.9Hz,3H),3.82(s,6H),4.64(d,J=6.9Hz,2H),5.52-5.57(m,1H),6.95(s,1H),6.97(s,1H),7.04(t,J=8.4Hz,1H),7.26-7.31(m,1H),7.37(dd,J=2.1,12.6Hz,1H),7.73-7.77(m,2H),8.26-8.31(m,2H) IR(KBr)3600-2800(br),1593,1524,1508,1486,1464,1380,1355,1278,1264,1211,1054,1029cm ⁻¹

Table 74

	foam
:	111NMR(CDC33) & 2.68(8,3H),3.13(8,3H),3.53(8,3H),3.78(8,3H),5.19(8,2H),6.83(6,1H),7.10-7.19(m,3H),7.30-7.50(m,7H),7.56-
1.356	7.64(m,2H)
	IR(KBr)1607,1520,1482,1365,1232,1177,1119,1082,1013cm ⁻¹
	HINMR(CDCL3) & 2.39(8,3H), 3.48(8,3H), 3.75(8,3H), 5.11(8,2H), 5.67(8,1H), 5.88(8,1H), 6.46(8,1H), 6.95(d.d,J=8.7&1.8Hz,1H),
1.357	7.02-7.11(m,111),7.03(d,J=8.7Hz,111),7.07(d,J=1.8Hz,111),7.22(d,J=8.7Hz,2H),7.34(d,J=8.7Hz,2H),7.36-7.47(m,3H)1R(KBr)
	3546,3511,1611,1586,1517,1478,1405,1360,1318,1240,1109,1068,1007cm ⁻¹
	HNMR(CDCl ₃) \(\delta\) 3.03(s,6H),3.48(s,3H),3.77(s,3H),5.15(s,2H),5.71(s,1H),6.73(dd,J=8.7&1.8Hz,1H),6.82(d,J=8.4Hz,2H),6.9
1.358	7(d,J=1.8Hz,111),6.98(dJ=8.7Hz,1H),7.11(8,1H),7.33-7.48(m,5H),7.56(d,J=8.7Hz,2H),9.92(8,1H)
	IR(KBr)3524,3447,1697,1612,1586,1525,1468,1364,1283,1257,1230,1201,1127,1103,1073,1020cm ⁻¹
	HNMR(CDCl ₃) § 3.04(s,6H),3.14(s,3H),3.48(s,3H),3.76(s,3H),5.17(s,2H),6.84(d,J=8.7Hz,2H),7.06-7.17(m,3H),7.34(d,J=1.8
I-359	I-359 Hz, 111), 7.35-7.50(m,6H), 7.55(d, J=8.7Hz, 2H), 10.08(s, 1H)
	IR(KBr)1698,1610,1527,1470,1357,1290,1232,1183,1115,1083,1018cm ⁻¹
	1HNMR(CDCl ₃) δ 2.56(8,3H),3.02(8,6H),3.54(8,3H),3.76(8,3H),5.16(8,2H),5.67(8,1H),6.80(d,J=8.4Hz,2H),6.85(8,1H),6.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),4.91(d,J=1),
1.360	d,J=8.4&2.1Hz,1H),7.01(d,J=8.4Hz,1H),7.05(d,J=2.1Hz,1H),7.30·7.47(m,5H),7.55(d,J=8.7Hz,2H)
	IR(KBr)3542,3436,1605,1530,1483,1391,1360,1287,1253,1234,1169,1074,1016cm ⁻¹
	1HNMR(CDCl3) & 1.31(d,J=6.9Hz,6H),2.57(8,3H),2.97(quint,J=6.9Hz,1H),3.54(8,3H),3.76(8,3H),5.17(8,2H),5.68(8,1H),6.86(
	s, 1H), 6.92(dd, J=8.4&2.1Hz, 1H), 7.02(d, J=8.4Hz, 1H), 7.05(d, J=2.1Hz, 1H), 7.31(d, J=8.1Hz, 2H), 7.34.7.46(m, 5H), 7.55(d, J=8.1Hz, 2H), 7.34.7.46(m, 5H), 7.34.76(m, 5H
1-361	Hz,2H)
	IR(KBr)3446,1606,1585,1522,1484,1457,1394,1356,1289,1257,1228,1172,1076,1018,1007cm-1

Table 75

55

50	45	40	35	30	25	20	15	10	5
1.362	14NMR(CDCl ₃) & 1.31(d,J=6.9Hz,6H),2.98(quint,J=6.9Hz,1H),3.46(s,3H),3.74(s,3H),5.15(s,2H),5.67(s,1H),5.92(s,1H),6.48(s,1H),6.97(dd,J=8.4&1.8Hz,1H),7.03(d,J=8.4Hz,1H),7.10(d,J=1.8Hz,1H),7.25(s,1H),7.31(d,J=7.8Hz,2H),7.34-7.49(m,5H),7.56(d,J=7.8Hz,2H),7.34-7.49(m,5H),7.34-7.49(m,5H),7.31(d,J=7.8Hz,2H),7.34-7.49(m,5H),7.31(d,J=7.8Hz,2H),7.34-7.49(m,5H),7.31(d,J=7.8Hz,2H),7.34-7.49(m,5H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2H),7.31(d,J=7.8Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2	1.31(d,J=6.9H; .4&1.8Hz,1H); .3465,1610,158	z,6H),2.98(qui 7.03(d,J=8.4Hz 36.1552.1518.1	nt,J=6.9Hz,1] 2,1H),7.10(d,J	H),3.46(s,3H) =1.8Hz,1H),7	,3.74(s,3H),5.1 7.25(s,1H),7.31 1245.1198.111	(d,J=7.8Hz,2)	H), 7.34-7.49(m,	,6.48(5H),7.
1-363	HINMR(CDCL ₃)	Cla) & 2.66(s,3H),3.0 H),7.28-7.51(m,10H) 3,1604,1618,1479,136)6(s,3H),3.13(s	,3H),3.57(s,3F	I),3.67(s,3H),	3.78(s,3H),5.1	9(s,2H),6.44(e	Cla) \(\tilde{0}\) 2.66(s, 3H), 3.06(s, 3H), 3.13(s, 3H), 3.57(s, 3H), 3.67(s, 3H), 3.78(s, 3H), 5.19(s, 2H), 6.44(s, 1H), 6.85(s, 1H), 7.15(1H), 7.28-7.51(m, 10H) \) 3,1604,1518,1479,1364,1237,1177,1153,1118,1078,1014cm \)	,7.15(
1.364	1HNMR(CD) =6.6Hz,1H), 1R(KBr)343	1.77(s,3H),1.81 ,1H),6.85(s,1H) ,1604,1518,147	1(8,3H),2.70(s,3,7.09(d,J=8.4F)	3H),3.06(8,3H lz,1H),7.28-7. 291,1269,123),3.24(a,3H),3 49(m,6H) 7,1177,1154,	1.58(s,3H),3.7E	(s,3II),4.64(d,	Cla) & 1.77(s,3H),1.81(s,3H),2.70(s,3H),3.06(s,3H),3.24(s,3H),3.58(s,3H),3.78(s,3H),4.64(d,J=6.6Hz,2H),5.49(t,J 6.42(s,1H),6.85(s,1H),7.09(d,J=8.4Hz,1H),7.28-7.49(m,5H) 2,3285,1604,1518,1479,1364,1328,1291,1269,1237,1177,1154,1117,1078cm ⁻¹	49(t,J
1-365	¹ HNMR(CDCl ₃) δ 1.57(s, 3H), 1.67(s, 3H), 1.77(s, 3H), 2.70(s, 3H), 2.96(s, 3H), 3.24(s, 3H), 3.53(s, 3H), 3.78(s, 3H), 4.32(d, J=7.211z, 211), 4.32(s, 3H), 7.31-7.41(m, 3H), 7.31-7.41(m, 3H), 7.64(m, 3H) 7.44-7.64(m, 3H) IR(KBr)3433, 1600, 1517, 1474, 1365, 1339, 1237, 1178, 1153, 1118, 1078, 1014cm ⁻¹	1.57(s,3H),1.6 4(d,J=6.9Hz,2I 1517,1474,136	7(s,3H),1.77(s, I),5.25(t,J=6.9 5,1339,1237,1	3H), 1.81(8,3F Hz, 1H),5.49(t 178,1153,1113	1),2.70(8,3H), ,J=7.2Hz,1H) 8,1078,1014cs	2.96(s,3H),3.2),6.85(s,1H),7.	4(e,3H),3.53(e	Cl ₃) δ 1.57(s,3H), 1.67(s,3H), 1.77(s,3H), 1.81(s,3H), 2.70(s,3H), 2.96(s,3H), 3.24(s,3H), 3.53(s,3H), 3.78(s,3H), 4.32(1), 4.64(d,J=6.9Hz,2H), 5.25(t,J=6.9Hz,1H), 5.49(t,J=7.2Hz,1H), 6.85(s,1H), 7.09(d,J=8.7Hz,1H), 7.31-7.41(m,3H), 1.3H) 3,1600,1517,1474,1365,1339,1237,1178,1153,1118,1078,1014cm ⁻¹	4.32(n,3H)
1-366	¹ HNMR(CDCl ₃) δ 1.76(s,3H),1.82(s,3H),3.08(s,3H),348(s,3H),3.75(s,3H),4.62(d,J=7.2Hz,2H),5.54(t,J=7.2Hz,1H),5.70(s,1H),6.40(s,1H),6.46(s,1H),6.89-7.00(m,2H),7.05(d,J=1.5Hz,1H),7.43-7.51(m,3H) 1R(KBr)3437,1605,1585,1518,1482,1386,1323,1243,1152,1114,1071,1002cm ⁻¹	Cl ₃) δ 1.76(s,3H),1.82(s,3H),3.08(s,3H),348(s,3H),3.75(s,3H),4.62(d,J=7.2H),4.0(s,1H),6.46(s,1H),6.89-7.00(m,2H),7.05(d,J=1.5Hz,1H),7.43-7.51(m,3H),7.1605,1585,1518,1482,1386,1323,1243,1152,1114,1071,1002cm ⁻¹	(s,3H),3.08(s,3 6.89-7.00(m,2l 2,1386,1323,13	(H),348(e,3H) (1),7.05(d,J=1. 243,1152,111	,3.75(8,3H),4. 5Hz,1H),7.43 4,1071,1002cı	62(d,J=7.2Hz, F.7.51(m,3H) m ⁻¹	2H),5.54(t,J=	7.2Hz,1H),6.70(8,1H)
1.367	¹ HNMR(CDCl ₃) δ 2.37(s,3H),3.21(s,3H),3.47(s,3H),3.64(s,3H),3.77(s,3H),3.84(s,3H),5.17(s,2H),6.63(s,1H),6.78(s,1H),7.10(s,1H),7.20(d,J=8.1Hz,2H),7.40(d,J=8.1Hz,2H),7.41(d,J=9.3Hz,2H),7.70(d,J=9.3Hz,2H),7.102,1607,1589,1518,1468,1356,1216,1161,1067,1039,1018cm ⁻¹	2.37(s,3H),3.21 [z,2H),7.40(d,J: 1689,1618,146	(e,3H),3.47(e,3 =8.1Hz,2H),7.4 8,1356,1216,1	(H),3.64(s,3H) 11(d,J=9.3Hz, 151,1067,1039	2H),7.70(d,J= 9,1018cm-1	.84(a,3H),5.17 -9.3Hz,2H)	(s,2H),6.63(s,	1H),6.78(s,1H),7	.10(8

Table 76

HINMR(CDCl ₃) δ 2.37(s,3H),3.21(s,3H	$HINMR(CI)C(1) \\ \delta = 2.37(s, 311), 3.21(s, 311), 3.48(s, 611), 3.65(s, 311), 3.73(s, 311), 3.83(s, 311), 4.32(d, J=11.4Hz, 111), 4.51(d, J=111), 4.51(d, J=11$
1.368 111),5.17(s,211),6.93(s,111),6.71(s,111),6	111),5.17(s,211),6.93(s,111),6.71(s,111),6.88(s,111),7.21(d,J=8.4112,211),7.32.7.41(m,411),7.73(d,J=8.4Hz,211)
1R(KBr)3514,1608,1516,1465,1355,1215,1149,1076,1039,1017cm	215, 1149, 1076, 1039, 1017cm ^{- 1}
m.p.125-127%	
1.369 HINMR(CDCl3) & 2.60(8,3H),3.52(8,3H	411NMR(CDCl3) & 2.60(8,311),3.52(8,311),3.73(8,311),3.84(8,311),5.20(8,211),6.83(8,111),7.00-7.48(m,1211)
IR(KBr)3434,2943,1611,1580,1520,14	IR(KBr)3434,2943,1611,1580,1520,1498,1480,1398,1297,1268,1245,1179,1129,1079,1009cm ¹
m.p.137-139°C	
1:370 HINMR(CDCB3) & 3.43(8,3H),3.71(8,3H	111NMR(CDChi) & 3.43(s,311),3.71(s,311),3.85(s,311),5.19(s,211),5.92(s,111),6.43(s,111),7.01-7.51(m,1211)
1R(KBr)3391,2937,1615,1583,1520,15	IR(KBr)3391,2937,1615,1583,1520,1503,1482,1464,1405,1359,1314,1292,1273,1239,1121,1108,1069,1005cm ⁻¹
m.p.92-94°C	
	$HNMR(CDCI_3) \ \delta \ 1.76(s,3H), 1.81(s,3H), 2.70(s,3H), 3.53(s,3H), 3.73(s,3H), 3.84(s,3H), 4.63(d,J=6.9Hz,2H), 5.53(m,1H), 6.84(s,3H), 2.84(s,3H), 2.84(s,3H), 3.84(s,3H), 3$
1.371 1H),7.00-7.45(m,7H)	
IR(KBr)3433,2938,1609,1581,1523,14	IR(KBr)3433,2938, 1609, 1581,1523,1499,1480,1401,1368,1297,1268,1240,1178,1118,1079,1021cm ⁻¹
foam	
	$^{1}\text{HNMR}(\text{CDC}_{13}) \ \delta 1.68(\text{s},3\text{H}), 1.74(\text{d},\text{J}=0.6\text{Hz},3\text{H}), 2.50 \cdot 2.59(\text{m},2\text{H}), 2.71(\text{s},3\text{H}), 3.53(\text{s},3\text{H}), 3.73(\text{s},3\text{H}), 3.84(\text{s},3\text{H}), 4.04(\text{t},\text{J}=7.2) \cdot 3.23(\text{s},3\text{H}), 3.73(\text{s},3\text{H}), 3.84(\text{s},3\text{H}), 4.04(\text{t},\text{J}=7.2) \cdot 3.23(\text{s},3\text{H}), 4.04(\text{t},3\text{H}), 4.04$
Hz,2H),5.23(m,1H),6.83(s,1H),7.00-7.42(m,7H)	42(m,7H)
IR(CHCl ₃)3011,2938,1612,1581,1522,	IR(CHCI3)3011,2938,1612,1581,1522,1500,1480,1465,1398,1370,1301,1268,1238,1209,1176,1119,1081,1017cm ⁻¹
m.p.95-98°C	
	$ \text{HINMR}(\text{CDC}_{13}) \ \delta \ \ 1.76 (\text{9,3H}), 1.80 (\text{8,3H}), 3.43 (\text{9,3H}), 3.72 (\text{9,3H}), 3.85 (\text{9,3H}), 4.63 (\text{d},\text{J}=\text{6.6Hz},\text{2H}), 5.56 (\text{m,1H}), 5.92 (\text{s,1H}), 6.43 (\text{s,2H}), 4.63 (\text{g,2H}), 4.63 (g,2H$
[111],7.01-7.42(m,711)	
IR(KBr)3318,2937,1612,1598,1500,14	IR(KBr)3318,2937,1612,1598,1500,1485,1464,1450,1361,1298,1275,1240,1104,1072,1011cm ⁻¹

Table 77

1-374	m.p.69-71°C IHNMR(CDCh) & 1.68(s,3H), 1.74(d,J=0.6Hz,3H), 2.50-2.60(m,2H),3.43(s,3H),3.71(s,3H),3.85(s,3H),4.04(t,J=7.2Hz,2H),5.2 3(m,1H),5.91(s,1H),6.43(s,1H),7.00-7.42(m,7H)
1.375	
1.376	
1.377	m.p.174.176°C; 'HNMR(CDCI.') & 3.21(s,3H),3.41(s,3H),3.63(s,3H),3.77(s,3H),5.30(s,2H),6.94(s,1H),7.03-7.05(m,2H),7.15-7.20(m,1H),7.25(m,1H),7.38(d,J=8.9Hz,2H),7.62(d,J=7.8Hz,1H),7.71(d,J=8.9Hz,2H),7.76(dt,J=7.8,1.5Hz,1H),8.60(m,1H) IR(KBr)1732,1523,1474,1368,1148,1061,863.845,790cm ⁻¹
1-378	m.p.>260°C 'HNMR(DMSO-d ₆) δ 3.32(e,3H),3.73(s,3H),5.28(s,2H),6.87(d,J=8.7Hz,2H),7.00(s,1H),7.04(dd,J=8.9,1.8Hz,1H),7.16(dd,J=1 2.3,1.8Hz,1H),7.26(t,J=8.9Hz,1H),7.39(m,1H),7.57(d,J=8.7Hz,2H),7.58(d,J=7.8Hz,1H),7.89(dt,J=7.8,1.5Hz,1H),8.61(m,1H),9.61(s,1H),12.9(brs,1H) 9.61(s,1H),12.9(brs,1H) 1R(Kls ₇)3383,1735,1705,1610,1622,1471,1272,1226,1059,1014,838,762cm ⁻¹
1.379	m.p.137-138°C 'HNMR(CDCl3) & 1.77(8,3H),1.82(8,3H),3.46(8,3H),3.79(8,3H),4.64(d,J=4.6Hz,1H),5.56(t,J=4.6Hz,1H),6.92-7.20(m,6H),7.6 1(dd,J=3.6,5.8Hz,2H),9.96(Brs,1H) IR(KBr)3434,2966,2935,2839,1702,1695,1521,1466,1378,1299,1287,1272,1240,1012,840cm ⁻¹

Table 78

m.p.389 99°C 11.380 H.)9.94(s,111) HI(KIR)3446,2933,2845,1699,1621,1473,1463,138,1293,1261,1238,1221,1131,803cm ⁻¹ HI(KIR)3446,2933,2845,1699,1621,1473,1463,1381,1293,1261,1238,1221,1131,803cm ⁻¹ HI(KIR)3433,2959,2842,1701,1602,1522,1464,1379,1303,1263,1222,1132,1018cm ⁻¹ HI(KIR)3433,2959,2842,1701,1602,1522,1464,1379,1303,1263,1222,1132,1018cm ⁻¹ HI(KIR)3433,2959,2842,1701,1602,1522,1464,1379,1303,1263,1222,1132,1018cm ⁻¹ HI(KIR)3433,2959,2842,1701,1602,1522,1464,1379,1303,1263,1222,1132,1018cm ⁻¹ HINMIK(DMSO-da) 6 1.74(s,3H),1.78(s,3H),3.32(s,3H),3.71(s,3H),4.62(d,J=7.0Hz,2H),5.48(t,J=5.8Hz,1H),6.91(s,1H),7.09-7 356m,2H),7.64-7.71(m,2H) HR(KIR)3433,2997,2937,1707,1604,1603,1620,1472,1376,1301,1266,1226,1150,1131,1060,839cm ⁻¹ HR(KIR)3433,2997,2938,1704,1603,1620,1472,1376,1301,1264,1226,1160,1132,1086,1068,840cm ⁻¹ HR(KIR)3433,2999,2938,1726,1603,1620,1470,1376,1301,1264,1226,1160,1132,1080,1068,840cm ⁻¹ HR(KIR)3433,2999,2938,1726,1603,1622,1470,1376,1301,1264,1226,1160,1132,1080,1068,840cm ⁻¹ HR(KIR)3433,2999,2938,1726,1693,1622,1470,1376,1301,1264,1226,1160,1132,1080,1068,840cm ⁻¹ HR(KIR)3434,2938,1726,1381,1,226,3H),3.27(s,3H),3.57(s,3H),3.57(s,3H),4.56(s,J=7.70(m,2H) HR(KIR)3434,2938,1726,13H),7.34-7.40(m,4H),7.70(d,J=8.84z,H) L-386 Se 48(s,1H),7.02(d,J=8.84z,2H),7.34-7.40(m,4H),7.70(d,J=8.84z,H) HR(KIR)3434,2938,1607,1619,1366,1244,1174,1161,1072,871,796cm ⁻¹ HR(KIR)3434,2938,1607,1619,1174,1174,1116,11072,871,796cm ⁻¹ HR(KIR)3434,2938,1607,1619,1174,1116,11072,871,796cm ⁻¹ HR(KIR)3434,2938,1607,1619,1174,11174,1116,11072,871,796cm ⁻¹ HR(KIR)3434,2938,1607,1619,1174,11174,1116,11072,871,796cm ⁻¹ HR(KIR)3434,2938,1607,1619,1174,11174,1116,11072,871,796cm ⁻¹ HR(KIR)3434,2938,1607,1619,1174,11174,1116,11072,871,796cm ⁻¹		
H),9.94(s,1 H),9.94(s,1 HR(KBr)34 III),6.95-7, IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; Oil Oil Oil Oil HR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)34; IR(KBr)	m.p.:	.98-99°C MARATHALLA & 9-376-311) 3-45(4-311) 3-78(4-311) 5-15(4-211) 6-93-7-26(m,4H),7-36(d,J=7-8Hz,2H),7-62(dd,J=4.0,8.8Hz,2
IIR(KIB ₇)34 m.p.118-11 iII),6.95-7 iIR(KIB ₇)34 in.p.93-94 ⁷ iIR(KIB ₇)34		.94(s, 111)
m.p.118-11 HINMR(CI HI),6.95-7, HR(KIbr)34; HNMR(DI 35(m,2H), HR(KBr)34; m.p.98-997 HNMR(DI HR(KIbr)34; oil HNMR(DI 6.84(s,1H), HR(KIBr)34; m.p.137-13 HNMR(CI),6.84(s,1H)	IRCK	(Br)3446,2933,2845,1699,1521,1473,1463,1381,1293,1261,1238,1221,1131,803cm
HINMR(CI HI), 6.95-7. IR(KIBr)34: "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(DI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI "HNMR(CI	m.p.	
111), 6.95-7. 11R(KBr)345 11R(KBr)345 11R(KBr)345 11R(KBr)345 11R(KBr)346 11R(KBR)366 11R($ MR(CD(Cl_3) \delta=1.69(s,3H),1.74(s,3H),2.54(dt,J=5.0,7.8Hz,2H),3.45(s,3H),3.78(s,3H),4.05(t,J=7.2Hz,2H),5.24(t,J=4.4Hz,4.1)$
IR(KIBr)34' "HNMR(I)I" 35(m,211), IR(KBr)34' "M.p. 98-99' "HNMR(DI IR(KIBr)34' "HNMR(DI IR(KIBr)34' "HNMR(DI G.84(6,1H), IR(KIBr)34' "HNMR(CI IR(KIBR)34' "HRKKIBR)34' "HRKKIRR)34' "HRKKIRR)34' "HRKKIRR)34' "HRKKIRR)34' "HRKKIRR)34' "HRKKIRR)34' "HRKKIRR'S "HRKKIRR'		6.95-7.16(m,6H),7.61(dd,J=3.4,8.8Hz,2H),9.95(brs,HI)
in.p.93-94 thinmit(D) (118(KBr)34) in.p.98-99 thinmit(D) (118(KBr)34) oil (118(KBr)34) in.p.137-13 in.p.137-13 in.kR(C) (118(KBr)34) in.p.137-13 in.kR(C) (118(KBr)34) in.kR(C)	IR(K	(187)3433,2959,2930,2842,1701,1002,1022,1404,1573,1505,1205,1222,1132,1035,1
11R(KBr)34; 11R(KB	m.p.	93-94°C
35(m,211), 1R(KBr)34; m.p.98-99° tHNMR(DI 1R(KBr)34; oil tHNMR(DI 6.84(s,1H), IR(KBr)34 m.p.137-13 tHNMR(CI),6.84(s,1H		$ MR(1)MSO-d_{6} \delta-1.74(8,3H),1.78(8,3H),3.32(8,3H),3.71(8,3H),4.62(d,J=7.0Hz,2H),5.48(t,J=5.8Hz,1H),6.91(8,1H),7.09.7$
IR(KBr)34; m.p.98-997 iHNMR(D) il iR(KBr)34; oil iHNMR(D) 6.84(s,1H), IR(KBr)34; m.p.137-13 iHNMR(C)),6.84(s,1H)		m,2H),7.64-7.71(m,2H)
m.p.98-99% iHNMR(D) II(KIBr)34; oil iHNMR(D) 6.84(8,1H), IIR(KIBr)34; m.p.137-13 iHNMR(C)),6.84(8,1H)	IR(K	(Br)3433,2976,2937,1707,1604,1520,1472,1376,1300,1265,1226,1160,1131,1060,839cm
1R(KBr)34 oil 1HNMR(DI 6.84(s,1H), 1R(KBr)34 m.p.137-13 1HNMR(CI),6.84(s,1H	m.p.	ე8-90ე
11R(K1Br)34. oil 'HNMR(D) 6.84(s,1H), IIR(K1Br)34. m.p.137-13 'HNMR(C)),6.84(s,1H		IMR(DMSO-d ₆) δ 2.32(8,3H),3.31(8,3H),3.70(8,3H),5.13(8,2H),6.88(8,1H),7.14-7.39(m,5H),7.63-7.70(m,2H)
oil 'HNMR(Di 6.84(e,1H), IR(KBr)34 m.p.137-13 'HNMR(Ci),6.84(e,1H	1R(K	(Br)3433,2981,2937,1704,1603,1620,1470,1375,1301,1266,1226,1159,1061,839cm ⁻¹
1HNMR(DI 6.84(s,1H), 1IR(KBr)34, m.p.137-13 1HNMR(CI),6.84(s,1H IR(KBr)34	oil	
6.84(s,1H), 1R(KBr)344 m.p.137-13 1HNMR(CI),6.84(s,1H		$IMR(DMSO-d_0) \ \delta \ \ 1.68(s,3H), 1.74(s,3H), 2.48-2.56(m,2H), 3.57(s,3H), 3.77(s,3H), 3.98(t,J=4.8Hz,2H), 5.26(t,J=4.2Hz,1H),$
IR(KBr)34 m.p.137-13 'HNMR(CI),6.84(e,1H IR(KBr)34	Ť	(6,1H),7.05-7.36(m,5H),7.63-7.70(m,2H)
m.p.137-13 !HNMR(CI),6.84(s,1H IR(KBr)34:	IR(K	(Br)3433,2979,2938,1726,1603,1622,1470,1376,1301,1264,1226,1160,1132,1080,1058,840cm ⁻¹
'HNMR(C)),6.84(8,1H IR(KBr)34	m.p.	.137-138°C
		MR(CDCl3)
IR(KBr)3434,2938,1607,1519,1366,1244,1174,1151,1072,871,796cm ⁻¹		14(s, 1H),7.02(d,J=8.8Hz,2H),7.34-7.40(m,4H),7.70(d,J=8.8Hz,2H)
	IR(K	KBr)3434,2938,1607,1519,1366,1244,1174,1151,1072,871,796cm ⁻¹

Table 79

m.p.169-170°C HINMR(CDCL _b) & 2.486	•						
70(d,J=6.0Hz,2H) IR(KBr)3432,3016,2935,1605,1519,1479,1368,1357,1233,1176,1151,1076,876,843,798cm	s,31D,3.21(s,3	H),3.56(s,3F	(I),3.77(s,3H),5.0	08(s,211),6.84(s	,1H),7.07(d,J	=5.8Hz,2H),7	m.p.169-170°C 1HNMR(CDC3.) & 2.48(s,3H),3.21(s,3H),3.56(s,3H),3.77(s,3H),5.08(s,2H),6.84(s,1H),7.07(d,J=5.8Hz,2H),7.19-7.39(m,4H),7. 70(d,J=6.0Hz,2H) IR(KBr)3432,3016,2935,1605,1519,1479,1368,1357,1233,1176,1151,1076,876,843,798cm ⁻¹
n.p.140-141 °C HINMR(CDCL ₃) & 1.68(8,3H), 1.75(8,3H), 2.51(dt,J=4.4,4.6Hz,2H),2.55(8,3H),3.21(8,3H),3.56(8,3H),3.77(8,3H),3.97(t,J=4.8H z,2H),5.26(t,J=4.0Hz, HI),6.84(8,1H),6.99(d,J=5.8Hz,2H),7.34-7.39(m,4H),7.70(d,J=5.8Hz,2H) IR(KBr)3445,2937,1608,1519,1480,1391,1361,1351,1237,1177,1154,1077,962,871,862,800cm ⁻¹	(s,3H),1.75(s,3 I),6.84(s,1H),(3,1519,1480,13	H),2.51(dt,4 5.99(d,4=6.8 191,1361,138	J=4.4,4.6Hz,2H]; HIz,2H),7.34-7.3 51,1237,1177,1	,2.55(s,311),3.2 39(m,411),7.70(c 164,1077,962,8	11(a,3H),3.5G(1,J=6.8Hz,2H 71,862,800cn	8,3H),3.77(8,5)	3II),3.97(t,J=4.8
1-125℃ (I)MSO-d ₆) δ 1. H),7.20(d,J=8.6l) 3411,2934,1608	.73(s,3H),1.75 Hz,2H),7.44(d,	(s,3H),3.30(J=8.2Hz,2H	s,3H),3.65(s,3H 1) 75,1105,1072,99),4.54(d,J=6.6F))6,898cm ⁻¹	12,2H),5.47(t,	J=6.4Hz,1H),	,6.40(s,1H),6.82
94°C ((DMSO-d ₆) δ 2 H),7.34-7.46(m,4 3398,2933,1609	32(s,3H),3.32(1H) 9,1523,1486,14	s,3H),3.64(s	3,3H),5.08(8,2H)	,6.40(s,1H),6.8	4(d,J=8.6Hz,	2H),6.98(d,J=	-8.6Hz,2H),7.19
(I)MSO-d ₆) & 1 6.80-6.95(m,4II) 3340,2934,1608	.72(8,3II),1.74 ,7.22(d,J=8.4I ,1522,1486,13	(s,3H),2.52(1z,2H),7.46(96,1285,123	(dt,J=4.8,5.0Hz, (d,J=8.2Hz,2H) 30,1175,1106,1C	2H),3.24(8,3H)	,3.58(s,3H),4	.06(t,J=7.2Hz	z,2H),5.24(t,J=4
(CDCl ₃ +CD ₃ OD 7.04(d,J=8.4Hz, 3548,3357,1603) δ 3.05(s,3H) 1H),7.07(d,J= ,1589,1520,14	,3.48(s,3H),7 1.8Hz,1H),7 87,1460,144	3.75(s,3H),5.16(.22-7.52(m,9H) 16,1410,1329,12	(s,2H),5.97(s,1l)	H),6.02(s,1H),	6.47(s, 1H),6	.94(d.d,J=8.4&1
	IR(KBr)3445,2937,1600 m.p.124-125 C HNMR(DMSO-d ₆) δ 11.94(m,4H),7.20(d,J=8.61 IR(KBr)3411,2934,1609 m.p.93-94 C HINMR(DMSO-d ₆) δ 2.:23(m,4H),7.34-7.46(m,41) IR(KBr)3398,2933,.1609 ill IR(KBr)3340,2934,1608 HNMR(CDCl ₃ +CD ₃ OD HNMR(CDCl ₃ +CD ₃ OD HX,HH),7.04(d,J=8.4Hz,RKBr)3548,3357,1603	IR(KBr)3445,2937,1608,1519,1480,13 m.p. 124-125 C HNMR(DMSO-d ₆) & 1.73(s,3H),1.75(s,4H),7.20(d,J=8.6Hz,2H),7.44(d, .94(m,4H),7.20(d,J=8.6Hz,2H),7.44(d, .94(m,4H),7.2034,1608,1523,1487,13 m.p.93-94 C IIINMR(DMSO-d ₆) & 2.32(s,3H),3.32(s,3H),7.34-7.46(m,4H) IR(KBr)3398,2933,1609,1523,1486,1-1 IR(KBr)3340,2934,1608,1522,1486,13 HNMR(CDCl ₃ +CD ₃ OD) & 3.05(s,3H), 4z,1H),7.04(d,J=8.4Hz,1H),7.07(d,J=1 R(KBr)3548,3357,1603,1589,1520,14	3445, 2937, 1608, 1519, 1480, 1391, 1361, 1341, 125 ℃ ((J)MSO-d ₆) δ 1.73(s, 3H), 1.75(s, 3H), 3.30(H), 7.20(d, J=8.6Hz, 2H), 7.44(d, J=8.2Hz, 2H), 7.40(d, J=8.2Hz, 2H), 7.20(d, J=8.2Hz, 2H), 7.32(s, 3H), 3.32(s, 3H), 3.64(s, H), 7.34-7.46(m, 4H) ((C)MSO-d ₆) δ 2.32(s, 3H), 1.74(s, 3H), 2.52(s, 80.6.95(m, 4H)), 7.22(d, J=8.4Hz, 2H), 7.46(s, 3H), 7.46(s, 3Hz, 2H), 7.46(s, 3Hz, 2H), 7.46(s, 3Hz, 2Hz, 2H), 7.46(s, 3Hz, 2Hz, 2Hz, 2H), 7.46(s, 3Hz, 2Hz, 1H), 7.46(s, 3Hz, 2Hz, 1H), 7.46(s, 3Hz, 2Hz, 1H), 7.46(s, 3Hz, 2Hz, 1H), 7.46(s, 3Hz, 2Hz, 2Hz, 2Hz, 2Hz, 2Hz, 2Hz, 2Hz, 2	IR(KBr)3445,2937,1608,1519,1480,1391,1361,1351,1237,1177,1117.120-124-125 °C ***HNMR(DMSO-d ₆) \$\pi\$ 1.73(\$,3H),1.75(\$,3H),3.30(\$,3H),3.65(\$,3H),3.65(\$,3H),3.65(\$,3H),3.30(\$,3H),3.30(\$,3H),3.65(\$,3H),3.64(\$,3H),3.65(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.64(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,3H),3.66(\$,	IR(KBr)3445,2937,1608,1519,1480,1391,1361,1237,1177,1154,1077,962,8 m.p.124-125 C ¹ HNMR(DMSO-d ₆) & 1.73(s,3H),1.75(s,3H),3.30(s,3H),3.65(s,3H),4.54(d,J=6.6H) ¹ 94(m,4H),7.20(d,J=8.6Hz,2H),7.44(d,J=8.2Hz,2H) IR(KBr)3411,2934,1608,1523,1487,1396,1231,1175,1105,1072,996,898cm ⁻¹ IR(KBr)3411,2934,1608,1523,1487,1396,1231,1175,1105,1072,996,898cm ⁻¹ IR(KBr)3398,2933,1609,1523,1486,1461,1398,1235,1174,1119,1071,997,829cm oil IR(KBr)3340,2934,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ IR(KBr)3340,2934,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ HNMR(CDCl ₃ +CD ₃ OD) & 3.05(s,3H),3.48(s,3H),7.22-7.52(m,9H) IR(KBr)3548,3357,1603,1589,1520,1487,1460,1445,1410,1329,1286,1247,1153,	IR(KBr)3445,29:77,1608,1519,1480,1391,1361,1351,1237,1177,1154,1077,962,871,862,800cm m.p.124-125°C IHNMR(DMSO-d ₆) δ 1.73(s,3H),1.75(s,3H),3.30(s,3H),3.65(s,3H),4.54(d,J=6.6Hz,2H),5.47(t, 934(m,4H),7.20(d,J=8.6Hz,2H),7.44(d,J=8.2Hz,2H)) IR(KBr)3411,2934,1608,1523,1487,1396,1231,1175,1105,1072,996,898cm ⁻¹ IR(KBr)3411,2934,1608,1523,1487,1396,1231,1175,1105,1072,996,898cm ⁻¹ IR(KBr)3398,2933,1609,1523,1486,1461,1398,1235,1174,1119,1071,997,829cm ⁻¹ IR(KBr)3398,2933,1609,1523,1486,1461,1398,1235,1174,1119,1071,997,829cm ⁻¹ IR(KBr)3340,2934,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ IR(KBr)3340,2934,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ IR(KBr)3340,2934,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ IR(KBr)3354,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ IR(KBr)3354,1608,1522,1486,1396,1245,1H),7.22-7.52(m,9H) IR(KBr)33548,3357,1603,1589,1520,1487,1460,1446,1410,1329,1286,1247,1153,1115,1077,100	IR(KBr)3445,2937,1608,1519,1480,1391,1361,1237,1177,1154,1077,962,871,862,800cm ¹ m.p. 124-125 C iHNMR(DMSO-d ₆) δ 1.73(s,31H),1.75(s,31H),3.0(s,3H),3.65(s,3H),4.54(d,J=6.6Hz,2H),5.47(t,J=6.4Hz,1H),6.40(s,1H),6.82-6 iHNMR(DMSO-d ₆) δ 1.73(s,31H),1.75(s,31H),3.06(s,3H),3.65(s,3H),4.54(d,J=6.6Hz,2H),5.47(t,J=6.4Hz,1H),6.40(s,1H),6.82-6 iR(KBr)3411,2934,1608,1523,1487,1396,1231,1175,1105,1072,996,898cm ⁻¹ iR(KBr)3341,2934,1609,1523,1486,1461,1398,1235,1174,1119,1071,997,829cm ⁻¹ iR(KBr)3398,2933.,1609,1523,1486,1461,1398,1235,1174,1119,1071,997,829cm ⁻¹ iR(KBr)3340,2933,1609,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ iR(KBr)3340,2934,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ iR(KBr)3340,2934,1608,1522,1486,1396,1285,1230,1175,1106,1072,996,828cm ⁻¹ iR(KBr)3340,2934,1608,1522,1486,1396,1247,1460,1445,1410,1329,1286,1247,1163,1115,1077,1010cm ⁻¹ iR(KBr)3548,3357,1603,1889,1520,1487,1460,1445,1410,1329,1286,1247,1163,1115,1077,1010cm ⁻¹

172

Table 80

. 10

	110 110 00000
7387	HINMR(CDCl ₃) & 2.37(s,3H),2.77-2.88(broad,1H),3.47(s,3H),3.64(s,3H),3.72(s,3H),3.82(s,3H),4.32(a,a,3=11.1&0.0012,1H),4.45(cDCl ₃) & 2.37(s,3H),4.92(s,1H),5.16(s,2H),6.70(d,J=9.3Hz,2H),6.88(s,1H),6.92(d,J=9.0Hz,2H),7.22(d,J=8.4Hz,2H),7.38(d,J=8.4Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(d,J=9.0Hz,2H),7.56(
1-393	foam HINMR(CD ₃ OD)) & 2.34(a,3H),3.38(a,3H),3.68(a,3H),4.00(dd,J=9.9,8.7Hz,1H),4.17(dd,J=9.9,3.0Hz,1H),5.06(dd,J=8.7,3.0Hz HII),6.43(s,HII),6.78(dd,J=8.7,1.8,1H),6.85(d,J=8.7Hz,2H),6.88(d,J=1.8Hz,1H),6.91(d,J=8.4Hz,1H),7.20(d,J=8.1Hz,2H),7.3 6(d,J=8.1Hz,2H),7.46(d,J=8.7Hz,2H) IR(Nujol)3367,1655,1612,1586,1523,1489,1459,1254,1225,1115,1072,1015,941,817cm ⁻¹
1.394	foam (HNMR(CD ₃ OD) & 3.38(s,3H),3.67(s,3H),4.02(dd,J=10.2,9.0Hz,1H),4.20(dd,J=10.2,3.3Hz,1H),5.11(dd,J=9.0,3.3Hz,1H),6.4 (HNMR(CD ₃ OD)) & 3.38(s,3H),3.67(s,3H),4.02(dd,J=10.2,3.3Hz,1H),6.91(d,J=8.4Hz,1H),7.46(d,J=8.7Hz,2H),7.30~7.50(d,J=8.1H),6.78(dd,J=8.4,2.1,1H),6.85(d,J=8.7Hz,2H),6.88(d,J=2.1Hz,1H),6.91(d,J=8.4Hz,1H),7.46(d,J=8.7Hz,2H),7.30~7.50(d,J=8.1H),6.91(d,J=8.4,Z,1H),7.46(d,J=8.7Hz,ZH),7.30~7.50(d,J=8.1Hz,ZH),7.30,2.1.11,1.1072,1014,941,825,764cm ⁻¹
1.395	foam 1HNMR(CDCl ₃) & 2.48(s,3H),2.82(s,3H),3.16(s,3H),3.22(s,3H),3.54(s,3H),3.77(s,3H),6.85(s,3H),7.34~7.38(m,2H),7.38(d,J= 8.1Hz,2H),7.39(d,J=8.7Hz,2H),7.46(d,J=1.8Hz,1H),7.46(d,J=8.7Hz,2H),7.82(d,J=8.1Hz,2H) IR(Nujol)1597,1514,1479,1464,1177,1152,1085,969,883,846,797,729cm ⁻¹
1.396	foam 'HNMR(CDCl ₃) δ 2.85(s,3H),3.14(s,3H),3.22(s,3H),3.54(s,3H),3.77(s,3H),6.85(s,1H),7.36(m,2H),7.39(d,J=8.7Hz,2H),7.45,(m,1H),7.60(m,2H),7.66(d,J=8.7Hz,2H),7.74(m,1H),7.94(m,2H) IR(Nujol)1612,1584,1514,1479,1451,1179,1162,1085,969,949,846,797,737cm ⁻¹

Table 81

,	
1:397	foam 14NMR(CDCL ₃) & 2.73(s,3H),3.21(s,6H),3.55(s,3H),3.77(s,3H),5.20(s,2H),6.84(s,1H),7.16(brs,1H),7.22(d,J=8.1Hz,1H),7.33,(d,J=2.4Hz,1H),7.37(brs,2H),7.38(d,J=8.7Hz,2H),7.65(brs,1H),7.67(d,J=8.7Hz,2H) 1R(Nujol)1608,1519,1480,1464,1176,1151,1080,972,876,846,798cm ⁻¹
1.398	foam HINMR(CDCta) δ 2.91(8,3H),3.19(8,3H),3.22(8,3H),3.54(8,3H),3.78(8,3H),5.26(8,2H),5.34(8,2H),7.04(brs,1H),7.05(8,2H),7.1 2(brs, HI),7.39(d,J=8.7Hz,2H),7.36~7.43(m,3H),7.67(d,J=8.7Hz,2H) IR(Nujol)1608,1519,1480,1463,1176,1151,1079,972,876,799cm ⁻¹
I-399	m.p.203-205 °C !!!NMR(DMSO-d ₆) δ 2.87(9,3H),3.35(8,3H),3.45(8,3H),3.52(9,3H),3.78(8,3H),5.39(8,2H),7.07(8,1H),7.08(d,J=3.9Hz,1H),7.16 (d,J=3.9Hz,1H),7.31(dd,J=9.0,1.8Hz,1H),7.33(8,1H),7.42(d,J=9.0Hz,1H),7.49(d,J=8.7Hz,2H),7.74(d,J=8.7Hz,2H) !R(Nujol)1609,1520,1481,1455,1231,1080,1013,984,947,878,832,798cm ⁻¹
1-400	foam 1-400 'HINMR(CDCL ₃) & 2.72(8,3H), 3.14(8,3H), 3.21(8,3H), 3.55(8,3H), 3.77(8,3H), 5.14(8,2H), 6.84(8,1H), 7.11(d,J=8.7Hz,1H), 7.34(dd,J=2.1,8.7Hz,1H), 7.34(d,J=8.4Hz,2H), 7.37(d,J=8.4Hz,2H), 7.41(d,J=2.1Hz,1H), 7.54(d,J=8.4Hz,2H), 7.68(d,J=8.4Hz,2H)
1-401	foam 'IHNMR(CDCl ₃) & 2.83(9,3H),3.14(9,3H),3.22(9,3H),3.75(9,3H),5.78(9,3H),5.26(9,2H),6.85(9,1H),7.24(d,J=8.4Hz,1H),7.38(d,J=8.4Hz,1H),7.41(dd,J=2.1,8.4Hz,1H),7.44(d,J=2.1Hz,1H),7.67(d,J=8.4Hz,2H) IR(KBr)1609,1523,1509,1481,1367,1402,1178,1152,1080,973,943,876,798cm ⁻¹

Table 82

1-402	foam HINMR(CDCH3) & 2.68(8,311),3.14(8,311),3.21(8,311),3.55(6,311),3.66(8,211),3.71(8,311),3.78(8,311),5.18(8,2H),6.84(8,1H),7.14(d,J=8.411z,111),7.32(d,J=8.711z,111),7.35(dd,J=2.1,8.711z,111),7.37(d,J=8.411z,2H),7.39(d,J=2.1Hz,1H),7.42(d,J=8.4Hz,2H),7.67(d,J=8.411z,2H) .67(d,J=8.411z,2H) HR(RBr)1736,1610,1519,1481,1365,1177,1151,1079,876,817,798cm ⁻¹
1.403	form 11 NMR(C(1)C(1), β 2.70(a, 311), 3.16(a, 311), 3.21(a, 311), 3.76(a, 311), 5.24(a, 211), 6.84(a, 111), 7.18(d, J=8.411z, 111), 7.36(dd 1, J=1.5, 8.411z, 111), 7.38(d, J=8.411z, 211), 7.41(d, J=1.511z, 111), 7.46(m, 211), 7.54(d, J=8.111z, 211), 7.62(m, 311), 7.64(d, J=8.111z, 211), 7.68(d, J=8.41z, 211) 7.68(d, J=8.41z, 211) 1R(KBr) 1609, 1519, 1481, 1365, 1177, 1151, 1079, 1014, 876, 818, 797cm ⁻¹
I-404	m.p.128-130°C iHNMR(CDCl3) & 2.75(s,3H),2.92(s,3H),3.18(t,J=6.9Hz,2H),3.21(s,3H),3.55(s,3H),3.77(s,3H),4.34(t,J=6.9Hz,2H),6.81(s,1H),7.08(d,J=8.4Hz,1H),7.29(m,2H),7.32(br.s,3H),7.35(dd,J=2.1,8.4Hz,1H),7.38(d,J=8.4Hz,2H),7.39(d,J=2.1Hz,1H),7.67(d,J=8.4Hz,2H) 8.4Hz,2H) IR(KBr)1609,1520,1481,1364,1177,1151,1080,872,815,797cm ⁻¹
1.405	foam !HNMR(CDCl ₃) & 1.71(d,J=6.3Hz,3H),2.45(br.s,3H),3.20(e,3H),3.28(e,3H),3.53(s,3H),3.75(s,3H),5.43(q,J=6.3Hz,1H),6.81(s, !H),6.90(d,J=8.4Hz,1H),7.16(dd,J=2.1,8.4Hz,1H),7.30(m,1H),7.36(d,J=2.1Hz,1H),7.37(d,J=8.4Hz,2H),7.35-7.41(m,4H),7.6 6(d,J=8.4Hz,2H) !R(KBr)1609,1518,1480,1365,1177,1151,1078,874,818,798cm ⁻¹

Table 83

-406	foam 'HNMR(CDC33) & 1.02(t,J=9.0Hz,3H),2.04(dq,J=6.3,9.0Hz,2H),2.39(br.s,3H),3.20(s,3H),3.30(s,3H),3.53(s,3H),3.75(s,3H),5. 18(t,J=6.3Hz,1H),6.80(s,1H),6.88(d,J=8.4Hz,1H),6.92(m,1H),7.14(dd,J=2.4,8.4Hz,1H),7.25-7.40(m,7H),7.66(d,J=8.4Hz,2H)	.02(t,J=9.0Hz,80(s,1H),6.88(,3H),2.04(dq,4,1,1,1=8.4Hz,11=	J=6.3,9.0Hz,2	I),2.39(br.s,3	H),3.20(8,3H),	3.30(s,3H),3.1 25-7.40(m,7H	53(s,3H),3.75(e,3),7.66(d,J=8.4Hz
	1R(KBr)1609, 1518, 1480, 1365, 1177, 1151, 1079, 874, 819, 797cm	1480,1365,117	7,1151,1079,8	374,819,797cn	_	•		
5	HINMR(CDCR) & 2.46(8,3H),3.07(8,3H),3.20(8,3H),3.54(8,3H),3.76(8,3H),6.33(8,1H),6.82(8,1H),6.99(d,J=9.0Hz,1H),7.19(dd	.46(s,3H),3.07	(s,3H),3.20(s,	311),3.54(s,311),3.76(8,311),6	.33(s, 1H),6.82	(s, 111),6.99(d	J=9.0Hz,111),7.1
-407	,J=2.1,9.01[z,111),7.26-7.40(m,911),7.43-7.47(m,411),7.66(d,J=8.41[z,211) 1R(KBr)1607,1518,1481,1364,1177,1151,1081,873,822,798cm ¹	26-7.40(m,911), 1481,1364,117	,7.43-7.47(m, [,] 7,1151,1081,8	111),7.66(d,J=8 173,822,798cm	3.4Hz,2H)			
	m.p.179-180°C							
	1HNMR(CDCl ₃) & 1.69(d,J=6.3Hz,3H),234(br.s,3H),2.45(s,3H),3.20(s,3H),3.27(s,3H),3.54(s,3H),3.75(s,3H),5.40(q,J=6.3Hz	.69(d,J=6.3Hz,	3H),234(br.s	s,3II),2.45(s,3]	1),3.20(s,3H),	3.27(s,3H),3.5	4(8,3H),3.75(8,3H),5.40(q,J=6
-408	111), 6.81(s, 111), 6.92(d, J=8.7Hz, 1H), 7.15(d, J=8.7Hz, 211), 7.16(dd, J=2.1,8.4Hz, 1H), 7.27(d, J=8.7Hz, 1H), 7.35(d, J=2.1Hz, 1H),	(d,J=8.7Hz,1}	1),7.15(d,J=8.	7Hz,2H),7.16	(dd,J=2.1,8.4)	Hz, 1H), 7.27(d	J=8.7Hz,1H)	,7.35(d,J=2.1Hz,
	7.37(d,J=8.4Hz,2H),7.66(d,J=8.4Hz,2H)	7.66(d,J=8.4H	z,2H)					
	IR(KBr)1609,1518,1480,1365,1177,1151,1078,874,819,797cm-1	480,1365,1177	7,1151,1078,8	74,819,797cm	- 1		;	
	m.p.243.244°C							
	1HNMR(DMSO-da) & 3.30(s,3H),3.64(s,3H),5.19(s,2H),6.39(s,1H),6.64(dd,J=1.8,8.4Hz,1H),6.77(d,J=1.8Hz,1H),6.83(d,J=8.	3.30(s,3H),3	1.64(a,3H),5.19	9(s,2H),6.39(s	1H),6.64(dd,	J=1.8,8.4Hz,1]	H),6.77(d,J=1	.8Hz,1H),6.83(d,
409	4Hz,2H),6.97(d,J=8.4Hz,1H),7.37(t,J=7.5Hz,1H),7.44(d,J=8.4Hz,2H),7.48(t,J=8.4Hz,2H),7.60(d,J=8.4Hz,2H),7.67.7.73(m,	4Hz, 1H), 7.37(t,J=7.5Hz,1H],7.44(d,J=8.4	Hz,2H),7.48(t,J=8.4Hz,2H)	,7.60(d,J=8.4	Hz,2H),7.67-7.7
	5H)							
	IR(KBr)3421,1610,1523,1488,1463,1403,1176,1115,1072,821cm-1	523,1488,1463	3,1403,1176,1	115,1072,821	m-1			
	foam							
	HNMR(CDCl ₃) & 3.18(t,J=6.9Hz,2H),3.45(s,3H),3.73(s,3H),4.31(t,J=6.9Hz,2H),6.44(s,1H),6.91(d,J=8.4Hz,2H),6.94(br.s,2	.18(t,J=6.9Hz,	2H), 3.45(8, 3F	I),3.73(s,3H),4	1.31(t,J=6.9H	z,2H),6.44(s,1	H),6.91(d,J=8	.4Hz,2H),6.94(b)
2	H),7.03(br.s,1H),7.23-7.37(m,5H),7.53(d,J=8.4Hz,2H)	3-7.37(m,5H),7	.53(d,J=8.4H	z,2H)				
	IR(KBr)3434,1612,1587,1523,1489,1455,1403,1250,1113,1070,1011,825,815cm ⁻¹	587,1523,1489	,1455,1403,13	250.1113.1070	1011.825.81	5em - 1		

Table 84

141	foam HINMR(CDCh ₃) & 1.70(d,J=6.0Hz,3H),3.44(s,3H),3.72(s,3H),5.36(q,J=6.0Hz,1H),6.42(s,1H),6.78(d,J=8.1Hz,1H),6.81(dd,J= 1.5,8.7Hz,1H),6.91(d,J=8.4Hz,2H),7.06(d,J=1.5Hz,1H),7.26·7.42(m,4H),7.51(d,J=8.4Hz,2H) IR(Khr)3472,1612,1587,1523,1488,1454,1403,1248,1113,1070,1011,825,cm ⁻¹
1.412	foam HINMR(CDCl ₃) & 1.03(t,J=7.2Hz,3H),1.94(m,1H),2.06(m,1H),3.43(s,3H),3.72(s,3H),5.08(dd,J=7.2,5.4Hz,1H),6.43(s,1H),6.7 3(d,J=8.4Hz,1H),6.78(dd,J=1.8,8.4Hz,1H),6.90(d,J=8.4Hz,2H),7.05(d,J=1.8Hz,1H),7.25-7.38(m,5H),7.51(d,J=8.4Hz,2H) IR(KBr)3434,1612,1522,1488,1454,1403,1247,1113,1070,1011,826,811cm ⁻¹
1-413	foam 'HNMR(CDC!\) & 3.44(8,3H),3.73(8,3H),6.25(8,1H),6.43(8,1H),7.26(m,2H),6.90(d,J=8.4Hz,2H),7.08(d,J=2.1Hz,1H),7.29.7.4 3(m,10H),7.51(d,J=8.4Hz,2H) IR(KBr)3432,1611,1523,1489,1454,1402,1226,1110,1069,1011,825cm ⁻¹
1.414	foam 'HNMR(CDCLs,) & 1.69(d,J=6.3Hz,3H),235(a,3H),3.44(a,3H),3.72(a,3H),5.33(q,J=6.3Hz,1H),6.42(a,1H),6.80(br.s,2H),6.90(d,J=8.4Hz,2H),7.05(br.s,1H),7.18(d,J=7.8Hz,2H),7.29(d,J=7.8Hz,2H),7.51(d,J=8.4Hz,2H) IR(KBr)3433,1612,1622,1488,1459,1403,1248,1113,1069,1011,817cm ⁻¹
I.415	m.p.164-167°C ¹HNMR(CDCl₃) δ 3.79(s,3H),3.80(s,3H),4.81(bre,1H),5.29(s,2H),6.88-6.94(m,4H),7.16(d,J=8.7Hz,1H),7.32-7.52(m,7H),7.73 (dd,J=2,1,8.7Hz,1H),8.10(d,J=2.1Hz,1H) IR(KBr)3513,2930,1618,1529,1497,1448,1387,1354,1296,1257,1211,1168,1091,1064,1024cm⁻¹

Table 85

55

50	45	40	- 35.	30	25	20	15	io	5
1.416	m.p.155-159°C 1HNMR(CDCl.) & 3.20(s,3H),3.39(s,3H) dd,J=2.1,8.4Hz,1H),8.26(d,J=2.1Hz,1H) IR(KBr)3433,2944,1539,1519,1487,1358	59°C; DCE;) & 3.20(s,3H),3.39(s,3H),3.82(s,3H),3.83(s,3H),6.95(s,1H),6.96; AHz,1H),8.26(d,J=2.1Hz,1H) 33,2944,1539,1519,1487,1358,1216,1176,1150,1086,1057,1031cm	39(s,311),3.82(e 111z,111) 487,1358,1216	4,3H),3.83(8,3	H), 6.95(a, 1H),	6.96(s, 1H), 7.3	4·7.38(m,211),	.9°C DCE;) & 3.20(8,3H),3.39(8,3H),3.82(8,3H),3.83(8,3H),6.95(8,1H),6.96(8,1H),7.34·7.38(m,2H),7.58·7.64(m,3H),7.87(AHz,1H),8.26(d,J=2.1Hz,1H) 33,2944,1539,1519,1487,1358,1216,1176,1150,1086,1057,1031cm	.87(
111-1	m.p.124-126°C HINMR(CDCh) \(\text{5.31}\),3.80(8,6H),5.30(8,2H) 2H),7.73(dd,4=2.1,9.0Hz,1H),8.10(d,4=2.1Hz,1H) IR(KBr)3433,2937,1619,1531,1491,1465,1450,133	26°C; DCL ₃) & 3.19(8,3H),3.80(8,6H),5.30(8,2H),6.93(8,1H),6.94(8,1H),7.18(d,J=9.0Hz,1H),7.32-7.4 d,J=2.1,9.0Hz,1H),8.10(d,J=2.1Hz,1H) 33,2937,1619,1531,1491,1465,1450,1358,1290,1256,1211,1176,1150,1088,1062,1033cm ⁻¹	80(6,6H),5.30(6 10(d,J=2,1Hz,1 491,1465,1450	1,2H),6.93(8,1 HI) 1358,1290,12	II),6.94(s, III), 56,1211,1176	7.18(d,J=9.0II	z,111),7.32-7.6 52,1033cm ¹	m.p.124-126°C. HINMR(CDCh) & 3.19(s,3H),3.80(s,6H),5.30(s,2H),6.93(s,1H),6.94(s,1H),7.18(d,J=9.0Hz,1H),7.32-7.52(m,7H),7.59-7.64(m, 2H),7.73(dd,J=2.1,9.0Hz,1H),8.10(d,J=2.1Hz,1H) IR(KBr)3433,2937,1619,1531,1491,1465,1450,1358,1290,1256,1211,1176,1150,1088,1062,1033cm ⁻¹	ı(m,
1-418	m.p.151-153℃ IHNMR(CDCL _{il})	3.18(s,3H),3.7 3,2930,1610,18	781(s,3H),3.78 523,1489,1467	4(s,3H),5.14(s	,2H),6.90-7.00 30,1211,1175)(m,5H),7.31-7 ,1147,1024cm	.50(m,7H),7.6	:0-7.65(m,2H)	
1.419	m.p.198-200°C !HNMR(CDCl:;)	3.77(s,6H),5. 7,1611,1592,1	13(s,2H),6.86-7 525,1492,1462	00(m,7H),7 .1444,1384,13	34·7.50(m,7H) 118,1273,1243	1209,1178,11	49,1110,1058,	1037,1006cm ¹	
1.420	m.p.168-171°C ¹ HNMR(CDCl ₃)	2.99(s,3H),3. 1,8H),7.60.7.64 7,1611,1592,1	19(s,3H),3.80(a (m,2H),7.81(d, 525,1492,1462	s,3H),3.81(s,3 ,J=2.1Hz,1H) ,1444,1384,13	H),5.16(8,2H),	6.83(brs, 1H),6	3.92(a,1H),6.90 49,1110,1058,	m.p.168-171°C !HNMR(CDCl ₃) & 2.99(s,3H),3.19(s,3H),3.80(s,3H),3.81(s,3H),5.16(s,2H),6.83(brs,1H),6.92(s,1H),6.96(s,1H),7.06(d,J=8.7H),7.32-7.46(m,8H),7.60-7.64(m,2H),7.81(d,J=2.1Hz,1H) RR(KBr)3403,3327,1611,1592,1525,1492,1462,1444,1384,1318,1273,1243,1209,1178,1149,1110,1058,1037,1006cm ⁻¹	н2.
1.421	m.p.168.171°C 'HNMR(CDCl ₃) ô 3.19(s,3H),3.80(s,3H),3.81(s,3 61-7.65(m,2H),8.58(d,J=2.4Hz,1H),8.66(brs,1H) IR(KBr)3401,1723,1613,1595,1549,1518,1486,1;	11°C DCl ₃) & 3.19(e,3H),3.80(e,3H),3.81(e,3H),5.23(e,2H),6.93(e,1H),6.97(e,1H),7.07(d,J=8.7Hz,1H),7.33-7.4 2H),8.58(d,J=2.4Hz,1H),8.66(brs,1H) 01,1723,1613,1595,1549,1518,1486,1385,1365,1330,1299,1256,1212,1151,1119,1060,1037,1017cm ⁻¹	30(s,3H),3.81(s H),8.66(brs,1F 549,1518,1486	,3H),5.23(8,2l 4) 1386,1365,13	H),6.93(s,1H),(3.97(a,1H),7.0°	7(d,J=8.7Hz,1	71°C DCl ₃) & 3.19(e,3H),3.80(e,3H),3.81(e,3H),5.23(e,2H),6.93(e,1H),6.97(e,1H),7.07(d,J=8.7Hz,1H),7.33-7.45(m,8H),7. 2H),8.58(d,J=2.4Hz,1H),8.66(bre,1H) 01,1723,1613,1595,1549,1518,1486,1385,1365,1330,1299,1256,1212,1151,1119,1060,1037,1017cm ⁻¹	D,7.

Table 86

	m.p.159-160°C
	111111111111111111111111111111111111
1-422	H),5.24(t,J=7.2Hz,1H),6.85(s,1H),7.07(d,J=8.6Hz,1H),7.39(d,J=8.7Hz,2H),7.55(dd,J=8.6,2.1Hz,1H),7.63(d,J=2.1Hz,1H),7.6
	8(d,J=8.711z,211)
	IR(KBr)1515,1481,1359,1325,1175,1140,1079,870,799cm - 1
	m.p.180-182°C
-	$\text{HINMR}(\text{CDCL}) \ \delta = 1.76(8,311), 1.81, (8,311), 2.71(8,311), 3.22(8,311), 3.55(8,311), 3.78(8,311), 4.06(d,J=6.3Hz,2H), 5.50(t,J=6.3Hz,11), 3.78(8,311), 4.06(d,J=6.3Hz,2H), 5.50(t,J=6.3Hz,11), 5.60(t,J=6.3Hz,11), 5.60(t,$
1-423	H),6.85(s,1H),7.09(d,J=8.7Hz,1H),7.39(d,J=8.7Hz,2H),7.55(dd,J=8.7,2.0Hz,1H),7.64(d,J=2.0Hz,1H),7.68(d,J=8.7Hz,2H)
	IR(KBr)1514,1479,1360,1241,1174,1132,1078,866,800cm ⁻¹
	m.p.176-178°C
	411NMR(CDC13) & 2.64(8,311), 3.22(8,311), 3.55(8,311), 3.78(8,311), 5.26(8,211), 6.86(8,111), 7.14(d,J=8.6Hz,111), 7.33·7,48(m,711), 7.
1-424	54(dd,J=8.6,2.1Hz,1H),7.66·7.70(m,3H)
	IR(KBr)1517,1482,1367,1327,1178,1150,1135,1081,878,797cm ⁻¹
	m.p.199.200°C
07	IIINMIR(CDCl ₃) δ 2.37(s,3H),2.63(s,3H),3.21(s,3H),3.55(s,3H),3.78(s,3H),5.21(s,2H),6.84(s,1H),7.13(d,J=8.7Hz,1H),7.20(d,
071-1	J=8.0Hz,2H),7.34(d,J=8.0Hz,2H),7.38(d,J=9.0Hz,2H),7.53(dd,J=8.7,1.8Hz,1H),7.66(d,J=1.8Hz,1H),7.68(d,J=9.0Hz,2H)
	IR(KBr)1517,1481,1366,1326,1255,1177,1151,1082,871,798cm ⁻¹
	amorphous
	1 HNMR(CDCl ₃) δ 1.68(8,3H),1.73(8,3H),2.54(q,J=7.2Hz,2H),3.44(8,3H),3.75(8,3H),4.05(t,J=7.2Hz,2H),.5.07(8,1H),5.24(t,J=1.2Hz,2H),4.05(t,J=7.2Hz,2H),4.05(t,J=7.2Hz,2H),5.07(8,1H),5.24(t,J=1.2Hz,2H),5.07(8,1H),5.24(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),4.05(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2H),5.04(t,J=1.2Hz,2Hz,2H),5.04(t,J=1.2Hz,2Hz,2Hz,2H),5.04(t,J=1.2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,
1.426	1-426 7.2Hz,1H),6.02(8,1H),6.45(8,1H),6.92(4,J=8.6Hz,2H),7.41(4,J=8.6Hz,1H),7.53(4,J=8.6Hz,2H),7.59(dd,J=8.6,2.0Hz,1H),7.63
·	(d,J=2.0Hz,1H)
	IR(CHCl ₃)3595,3506,1614,1523,1489,1326,1281,1258,1122,1079,1057cm ⁻¹

Table 87

, ;	m.p.180-182°C HINMR(CDCLa) & 1.75(6,311), 1.80(8,311), 3.44(8,311), 3.76(8,311), 4.66(d, J=6.6Hz,211), 4.87(8,111), 5.52(t, J=6.6Hz,111), 6.02(8,111
1-427),6.46(s,1H),6.93(d,J=8.9Hz,2H),7.06(d,J=8.4Hz,1H),7.53(d,J=8.9Hz,2H),7.59(dd,J=8.4,2.1Hz,1H),7.71(d,J=2.1Hz,1H), 1R(KBr)3406,1615,1522,1488,1399,1324,1280,1256,1138,1116,1076,1054,996,835,826cm ⁻¹
	m.p.133-135 °C IHNMR(CDCh,) \$ 3.44(a,3H),3.75(a,3H),4.87(a,1H),5.23(a,2H),6.03(a,1H),6.46(a,1H),6.93(d,J=8.6Hz,2H),7.11(d,J=8.4Hz,1
128	H),7.32-7.49(m,5H),7.53(d,J=8.6Hz,2H),7.60(dd,J=8.4,2.1Hz,1H),7.76(d,J=2.1Hz,1H), IR(KBr)3397,1612,1523,1489,1400,1321,1257,1132,1084,1056,1002,832cm ⁻¹
	m.p.174-176°C
1.429	HNMR(CDCl ₃) δ 2.37(8,3H),3.44(8,3H),3.75(8,3H),4.88(8,1H),5.18(8,2H),6.02(8,1H),6.45(8,1H),6.93(4,J=8.6Hz,2H),7.11(α, J=8.4Hz,1H),7.21(d,J=8.1Hz,2H),7.36(d,J=8.1Hz,2H),7.53(d,J=8.6Hz,2H),7.59(dd,J=8.4,2.1Hz,1H),7.74(d,J=2.1Hz,1H),
	IR(KBr)3481,3376,1616,1520,1491,1327,1260,1119,1081,1004,827cm ⁻¹
	1HNMR(CDCl3) & 2.37(8,3H),2.54(8,3H),2.68(8,3H),3.12(8,3H),3.54(8,3H),3.77(8,3H),5.14(8,2H),6.85(8,1H),7.12-7.24(m,3H),
1.430	7.30-7.44(m,6H),7.53-7.59(m,2H) IR(CHCI ₃)1608,1517,1476,1367,1117,1080,1013,970,876cm ⁻¹
	m.p.164-168°C
1.431	$^{\rm HNMR(CDCl_3)} \delta \ 1.76(s,3H), 1.82(s,3H), 2.54(s,3H), 3.47(s,3H), 3.75(s,3H), 4.62(d,J=6.9Hz,2H), 5.53(m,1H), 5.69(s,1H), 5.89(s,1H), 5.89(s,1H)$
101.1	1H),6.46(s,1H),6.92-7.08(m,3H),7.30-7.38(m,2H),7.55-7.62(m,2H) IR(CHCl ₃)3618,2968,1584,1516,1483,1460,1414,1388,1310,1289,1243,1114,1069,1011,936,818cm ⁻¹
	m.p.179-181℃
1 439	1HNMR(CDCl ₃) δ 2.39(8,3H),2.54(8,3H),3.46(8,3H),3.74(8,3H),5.10(8,2H),5.67(8,1H),5.89(8,1H),6.46(8,1H),6.81(dd,J=2.1,8.
1.432	4Hz,1H),7.03(d,J=8.4Hz,1H),7.08(d,J=2.1Hz,1H),7.20-7.26(m,2H),7.31-7.37(m,4H),7.55-7.61(m,2H) IR(CHCl ₃)3524,2930,1586,1617,1483,1460,1414,1389,1310,1289,1245,1114,1090,1070,1009,937,818cm ⁻¹

Table 88

E :	m.p.111-112°C HINMR(CDCla) & 1.76(d,J=0.6Hz,3H), 1.81(d,J=0.9Hz,3H),2.69(s,3H),3.52(s,3H),3.78(s,3H),4.63(t,J=6.6Hz,2H),5.53(m,1H) 6.8-f(s,1H),7.02-7.25(m,5H),7.56-7.65(m,2H)
	IR(CHCl ₃)2932, 1607, 1520, 1481, 1368, 1266, 1080, 1012, 961, 907, 836, 812cm
	m.p.97-101°C
	$ HNMR(CDCL_3) \delta 1.69(s,3H),1.75(d,J=0.9Hz,3H),2.48.2.58(m,5H),3.46(s,3H),3.47(s,3H),4.06(t,J=6.9Hz,2H),5.22(m,1H),5.6$
::	7(s, 111),5.88(s, 111),6.46(s, 111),6.92-6.97(m,211),7.05(m,111),7.30-7.38(m,211),7.55-7.62(m,211)
	IR(CHCl.)3518,2928,1584,1517,1483,1414,1388,1290,1246,1114,1090,1070,1011,937,907,818cm · 1
	m.p.127-129°C
	111 NMR(CDCL3) \$\delta \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
1-435	3(m,1H),6.83(s,1H),7.00-7.21(m,5H),7.57-7.64(m,2H)
	IR(CHCl ₃)2930, 1607, 1520, 1481, 1368, 1266, 1080, 1012, 960, 836, 812cm ⁻¹
	m.p.159.161°C
707	1 HNMR(CDCl ₃) 3 2 3 6(e,3H),2.57(e,3H),3.52(e,3H),3.77(e,3H),5.16(e,2H),6.83(e,1H),7.05-7.24(m,7H),7.31-7.37(m,2H),7.56-1 1
1:430	7.65(m,2H)
	IR(CHCl ₃)1520,1481,1368,1267,1131,1080,1012,960,836cm ⁻¹
	m.p.120-124°C
t	1 HNMR(CDCl ₃) δ 1.76(d,J=0.6Hz,3H),1.81(d,J=0.6Hz,3H),3.43(s,3H),3.67(s,3H),4.63(d,J=6.6Hz,2H),5.56(m,1H),5.96(s,1H)
1:43/), 6.44(s, 111), 7.00·7.24(m, 511), 7.57·7.66(m, 211)
	IR(CHCl ₃)3522,2930,1586,1518,1484,1415,1390,1311,1290,1248,1115,1090,1071,1012,938,818cm

Table 89

1-438	m.p.140.5-141.5°C 'IINMR(CDChi) & 2.37(s,3H),3.43(s,3H),5.75(s,3H),5.14(s,2H),5.97(s,1H),6.44(s,1H),7.04-7.28(m,7H),7.36(d,J=8.1Hz,1H),7. 57-7.65(m,2H) IR(CHChi)3496,2932,1613,1520,1488,1460,1391,1313,1267,1113,1069,1010,934,825cm ⁻¹
1-439	m.p.76.5-77.5°C 'IINMR(CDCh ₃) & 1.68(s,31I), 1.74(d,J=0.9Hz,31I), 2.49-2.60(m,2H), 3.43(s,3H), 3.75(s,3H), 4.05(t,J=7.2Hz,2H), 5.23(m,1H), 5.9 6(s,1H), 6.44(s,1H), 6.99-7.28(m,5H), 7.57-7.66(m,2H) IR(CHCh ₃)3498,2930, 1613, 1521, 1489, 1391, 1310, 1267, 1113, 1070, 1011, 934, 825cm ⁻¹
1.440	
. [-44]	m.p. 199-202°C 11INMR(dG-DMSO) \(\delta\) 3.28(s, 311), 3.34(s, 311), 3.67(s, 311), 5.14(s, 211), 6.52(s, 111), 6.66(dd, J=2.1, 8.4 Hz, 111), 6.79(d, J=2.1 Hz, 111), 6.97(d, J=8.411z, 111), 7.30-7.56(m, 511), 7.86-7.93(m, 211), 7.98-8.04(m, 211), 8.65-9.02(brs, 21) IR(KBr)3487, 3413, 3004, 1597, 1518, 1500, 1482, 1456, 1360, 1310, 1281, 1231, 1146, 1118, 1090, 1068, 1016, 1004, 961cm ⁻¹
.442	m.p.80-84°C !HNMR(CDCl ₃) δ 1.15(t,J=7.2Hz,3H),3.60(q,J=7.2Hz,2H),3.75(s,3H),5.03(s,1H),5.15(s,2H),5.69(s,1H),5.98(s,1H),6.45(s,1H),6.88-6.94(m,2H),6.96(dd,J=2.1,8.1Hz,1H),7.02(d,J=8.1Hz,1H),7.10(d,J=2.1Hz,1H),7.34-7.49(m,5H),7.51-7.59(m,2H) IR(CHCl ₃)3528,1612,1521,1488,1454,1412,1383,1286,1246,1113,1069,1023,886,825cm ⁻¹
	110000000000000000000000000000000000000

Table 90

1-443	m.p.168-169°C HINMR(CDCL ₃) & 1.14(t,J=6.9Hz,3H),2.66(s,3H),3.13(s,3H),3.20(s,3H),3.72(q,J=6.9Hz,2H),3.78(s,3H),5.19(s,2H),6.84(s,1H),7.15(d,J=8.4Hz,1H),7.31-7.49(m,9H),7.66-7.73(m,5H)),7.15(d,J=8.4Hz,1H),7.31-7.49(m,9H),7.66-7.73(m,5H) 1R(CHCL ₃)1517,1479,1369,1148,1117,1082,969,873cm ⁻¹
1-444	m.p.192-194°C HINMR(CDCl ₃) δ 3.13(s,3H),3.44(s,3H),3.63(s,3H),3.76(s,3H),5.14(br,1H),5.19(s,2H),6.81-6.84(m,2H),6.94(s,1H),7.14(d,J= 8.4Hz,1H),7.22-7.25(m,2H),7.37-7.50(m,5H),7.57(dd,J=8.7,2.1Hz,1H),7.67(d,J=2.1Hz,1H) HR(CHCl ₃)3595,3441,1730,1613,1522,1472,1371,1291,1258,1172,1164,1003,972,961,904,838cm ⁻¹
1-445	m.p.179·180°C IINMR(CDC!!.) δ 1.77(8,3H),1.82(8,3H),2.31(8,3H),3.24(8,3H),3.45(8,3H),3.58(8,3H),3.76(8,3H),4.64(d,J=6.9Hz,2H),6.95(8, 1H),7.06·7.13(m,3H),7.35·7.38(m,2H),7.57(dd,J=8.4,2.4Hz,1H),7.64(d,J=2.4Hz,1H) 1R(CHCl3)2938,1732,1614,1599,1518,1470,1445,1370,1345,1290,1228,1200,1169,1116,1081,1003,973,905,846,829cm ⁻¹
1-446	m.p.137-138°C HINMR(CDCL3) & 3.13(8,311),3.45(8,311),3.59(8,311),3.77(8,311),3.88(8,311),4.23(8,2H),5.19(8,2H),6.96(8,1H),7.15(d,J=8.7Hz, 1H),7.35-7.50(m,9H),7.60(dd,J=8.7,2.4Hz,1H),7.67(d,J=2.4Hz,1H) IR(CHCl3)2954,1750,1734,1614,1516,1471,1387,1372,1345,1258,1173,1147,1118,1081,1064,1004,877cm ⁻¹
1-447	m.p.184-185°C !HNMR(CDCl ₃) ô 3.44(e,3H),3.60(e,3H),3.74(e,3H),4.70(br,2H),5.17(e,2H),6.95-7.02(m,4H),7.17(dd,J=8.4,2.1Hz,1H),7.25(e, 1H),7.31-7.34(d,J=8.7Hz,2H),7.38-7.47(m,5H) IR(CHCl ₃)3541,2937,1776,1733,1608,1519,1474,1442,1344,1291,1157,1130,1085,1063,1002,900,862,835cm ⁻¹

Table 91

.

)	
1.448	m.p.176-178% HINMR(CDCR) 3.12(s,3H),3.44(s,3H),3.60(s,3H),3.76(s,3H),3.83(s,3H),4.66(s,2H),5.19(s,2H),6.91-6.96(m,3H),7.14(d,J=8.4Hz,HI),7.28-7.49(m,7H),7.57(dd,J=8.7,2.4Hz,HI),7.67(d,J=2.4Hz,HI)
1-149	m.p.124-126°C !HNMR(CDCl ₃) & 1.69(s,3H),1.74(d,J=0.9Hz,3H),2.31(s,3H),2.53-2.60(m,2H),3.23(s,3H),3.44(s,3H),3.58(s,3H),3.76(s,3H),4. 09(t,J=6.6Hz,2H),5.22(m,1H),6.95(s,1H),7.07(d,J=8.4Hz,1H),7.10-7.13(m,2H),7.34-7.37(m,2H),7.57(dd,J=9.0,2.4Hz,1H),7.6 4(d,J=2.4Hz,1H) 1R(CHCl ₃)2938,1732,1614,1518,1469,1445,1370,1291,1257,1170,1167,1081,1004,973,961,906,846cm ⁻¹
1.450	m.p.160-161°C HINMR(CDCl ₃) \$0.169(8,3H),1.74(d,J=0.9,3H),2.53-2.60(m,2H),3.23(8,3H),3.44(8,3H),3.62(8,3H),3.76(8,3H),4.08(d,J=6.6Hz ,2H),4.91(br,1H),5.20-5.25(m,1H),6.83-6.86(m,2H),6.94(8,1H),7.06(d,J=8.7Hz,2H),7.23-7.26(m,2H),7.57(dd,J=8.7,2.4Hz,1H),7.64(d,J=2.4Hz,1H) IR(CHCl ₃)3595,3448,2937,1730,1613,1522,1469,1445,1370,1345,1292,1260,1172,1117,1081,1064,1003,973,864,837cm ⁻¹
1.451	m.p.182-184°C 'HNMR(CDCl ₃) & 1.70(d,J=0.6Hz,3H),1.81(d,J=0.9Hz,3H),3.24(s,3H),3.45(s,3H),3.63(s,3H),3.75(s,3H),4.64(d,J=6.6Hz,2H), 5.48-5.54(m,1H),5.76(br,1H),6.78-6.82(m,2H),6.95(s,1H),7.08(d,J=8.7Hz,1H),7.19-7.24(m,2H),7.56(dd,J=8.7,2.4Hz,1H),7.6 4(d,J=2.4Hz,1H) IR(CHCl ₃)3595,3445,2939,1730,1613,1522,1471,1445,1369,1345,1291,1257,1172,1116,1081,1064,1002,973,904,838cm ⁻¹
1.452	m.p.250-253°C(dec.) ¹ HNMR(CD ₃ OD) δ 3.41(s,3H),3.71(s,3H),4.58(s,2H),5.21(s,2H),6.29·6.95(m,3H),7.02·7.03(m,2H),7.17(s,1H),7.26·7.41(m,5H),7.49·7.52(m,2H) ¹ HNMR(CD ₃ OD) δ 3.41(s,3H),7.16(s,1H),7.26·7.41(m,5H),7.49·7.52(m,2H) ¹ HN(KBr)3424,2933,2553,1709,1608,1519,1467,1383,1333,1291,1229,1129,1084,1060,1001,915,861,841,727,697cm ⁻¹

Table 92

1-453	foam !HNMR(CDC!a)
1-454	m.p.166-167°C ¹ HNMR(CDCl ₃) δ 1.77(s,3H),1.82(s,3H),3.48(s,3H),3.75(s,3H),4.64(d,J=6.6Hz,2H),5.51-5.55(m,1H),5.75(br,1H),6.77-6.80(¹ MNMR(CDCl ₃) δ 1.77(s,3H),1.82(s,3H),3.48(s,3H),3.75(s,3H),4.64(d,J=6.6Hz,2H),5.51-5.55(m,1H),5.75(br,1H),6.77-6.80(¹ MNMR(CDCl ₃) δ 1.77(s,3H),7.17(dd,J=8.1,2.1Hz,1H),7.23-7.28(m,3H) ¹ M(KBr)3447,2937,1590,1559,1522,1473,1382,1338,1295,1259,1131,1080,1059,999,918,862,837,815,791,754cm ⁻¹
1-455	m.p.168-170°C 'HNMR(CD ₃ OD) δ 1.68(8,3H),1.74(8,3H),2.50-2.58(m,2H),3.41(8,3H),3.73(8,3H),4.05(t,J=6.9Hz,2H),5.29(m,1H),6.76-6.79(
1.456	m.p.153-155\chi. HNMR(CDCl ₃)\delta 3.14(s,3H),3.50(s,3H),3.77(s,3H),5.20(s,2H),7.10-7.28(m,6H),7.38-7.50(m,5H),7.56(dd,J=8.4,2.1Hz,1H),7. 65(d,J=2.1Hz,1H),9.98(s,1H) IR(CHCl ₃)2938,2843,1697,1604,1590,1517,1469,1372,1331,1293,1254,1172,1159,1123,1093,1005,963,818cm ⁻¹
1-457	m.p.143-145°C !HNMR(CDCl ₃) δ 1.77(8,3H),1.83(8,3H),3.44(8,3H),3.63(8,3H),4.63(4,J=6.6Hz,2H),5.53(m,1H),5.72(br,1H),6.82-6.85(m,2H),6.92-6.95(m,2H),7.16(dd,J=8.4,2.4Hz,1H),7.23-7.26(m,3H) IR(CHCl ₃)3595,3537,2938,1729,1612,1591,1522,1473,1395,1344,1290,1258,1173,1129,1081,1063,1003,900,862,836cm ⁻¹

Table 93

1-458	powder HINMR(CDCH ₃) & 2.37(s,3H),3.08(s,3H),3.11(s,3H),3.21(s,3H),3.51(s,3H),3.52(s,3H),5.26(s,2H),7.19-7.23(m,2H),7.36-7.43(m,4H),7.45-7.50(m,2H),7.82(d,J=2.1Hz,1H),7.98(d,J=2.1Hz,1H) IR(CHCh ₃)3033,2942,1543,1377,1220,1181,1153,1034cm ⁻¹
1.459	m.p.182-187°C(dec.) ¹ HINMR(CDCh ₃) δ 2.36(s,3H),2.73(s,3H),3.16(s,3H),3.22(s,3H),3.43(s,3H),3.47(s,3H),5.08(s,2H),6.86(brs,1H),6.92(brs,1H),7.17.7.21(m,2H),7.32-7.38(m,2H),7.39-7.44(m,2H),7.50-7.55(m,2H) IR(CHCl ₃)3030,2939,1618,1599,1513,1468,1416,1372,1178,1150,1031cm ⁻¹
1-460	powder ¹ HNMR(CDCl ₃) δ 2.38(s,3H),2.83(s,3H),3.05(s,3H),3.22(s,3H),3.56(s,3H),3.80(s,3H),3.91(s,3H),5.13(s,2H),6.86(s,1H),7.20- 7.24(m,2H),7.37-7.46(m,4H),7.65-7.70(m,3H),7.89(d,J=2.1Hz,1H) IR(CHCl ₃)3032,2940,1728,1473,1373,1232,1179,1150,1085cm ⁻¹
1.461	amorphous IINMR(CDC!3) & 3.78(9,6H),5.16(9,2H),5.31(d,J=3.6Hz,1H),5.72(9,1H),6.91(9,1H),6.94(9,1H),6.99(d,J=8.2Hz,1H),7.04(t,J=8.6Hz,1H),7.08(dd,J=8.2,2.1Hz,1H),7.22(d,J=2.1Hz,1H),7.25(ddd,J=8.6,1.8,0.9Hz,1H),7.34-7.46(m,6H) IR(CHC!3)3577,3548,1526,1495,1280,1635cm ⁻¹
1.462	m.p.163·165°C 'HNMR(CDCl ₃) δ 3.12(8,3H),3.26(8,3H),3.80(8,3H),3.81(6,3H),5.18(6,2H),6.91(8,1H),6.94(8,1H),7.12(d,J=8.4Hz,1H),7.36-7. 50(m,8H),7.59(d,J=1.8Hz,1H) IR(CHCl ₃)1494,1367,1212,1180,1116,872,808cm ⁻¹

Table 94

	m.p.125-127°C
	111111111111111111111111111111111111
1.463),6.91(s,111),6.95(s,111),7.06(d,J=8.7Hz,111),7.37(dd,J=8.7,1.9Hz,111),7.40-7.47(m,2H),7.50(d,J=2.4Hz,1H),7.57(d,J=1.9Hz,1
	IR(KBr)1523,1496,1370,1213,1175,1116,1035,977,832,807cm ⁻¹
	m.p.149-151°C
	111111111111111111111111111111111111
1.464	1.464 (1.5.21(t,J=7.011z,111),6.91(s,111),6.94(s,111),7.05(d,J=8.411z,111),7.37(dd,J=8.4,2.1Hz,111),7.40.7.47(m,2H),7.50(d,J=2.1Hz,1
	H),7.57(d,J=2.1Hz,1H)
	IR(KBr)1523,1495,1368,1212,1176,1116,1035,976,832,806cm. 1
	m.p.148-150°C
1 405	1HNMR(CDCl:1) δ 2.38(e,3H),3.11(e,3H),3.26(e,3H),3.80(e,3H),3.81(e,3H),5.13(e,2H),6.91(e,1H),6.94(e,1H),7.12(d,J=8.4Hz,
co#-1	1H),7.22(d,J=7.8Hz,2H),7.35(d,J=7.8Hz,2H),7.37(dd,J=8.4,1.8Hz,1H),7.40·7.50(m,3H),7.69(d,J=1.8Hz,1H)
	IR(KBr)1523,1490,1370,1181,1115,971,868,806cm ⁻¹
	m.p.109-112°C
	1 HNMR(CDCl ₃) δ 1.76(8,3H),1.82(8,3H),3.79(8,6H),4.62(d,J=6.9Hz,2H),5.26(d,J=3.9Hz,1H),5.52(t,J=6.9Hz,1H),5.72(8,1H),
1-466	6.91(s,1H),6.93(d,J=8.6Hz,1H),6.94(s,1H),7.04(t,J=8.7Hz,1H),7.07(dd,J=8.6,2.1Hz,1H),7.19(d,J=2.1Hz,1H),7.25(ddd,J=8.7,
	1.8,0.9Hz,1H),7.37(dd,J=12.0,1.8Hz,1H)
	IR(CHCl ₃)3578,3542,1526,1495,1280,1055,1035cm ⁻¹

Table 95

50	45	4 0	35	30	25	20	15	10	5
1-467	amorphous 'IINMR(CDCls) δ 2.39(s,3H),3.79(s,6H),5.11(s,2H),5.40(brs,1H),5.73(s,1H),6.91(s,1H),6.94(s,1H),6.99(d,J=8.4Hz,1H),7.04(t,J=8.7Hz,1H),7.08(dd,J=8.4,2.1Hz,1H),7.21(d,J=2.1Hz,1H),7.23(d,J=7.7Hz,2H),7.25(ddd,J=8.7,2.1,1.2Hz,1H),7.34(d,J=7.7Hz,2H),7.37(dd,J=11.7,2.1Hz,1H) IIz,2H),7.37(dd,J=11.7,2.1Hz,1H) IR(CHCls)3577,3545,1526,1495,1280,1055,1035,868cm ⁻¹	2.39(s,3H),3.79 8(dd,J=8.4,2.1H; 11.7,2.1Hz,1H) 45,1626,1495,12	(s,6H),5.11(s z,1H),7.21(d,	,2H),5.40(brs,1 J=2.1Hz,1H),7. 5,868cm ⁻¹	H),5.73(8,1H)	,6.91(s, 1H),6.94 ,2H),7.25(ddd,	1(s, 111), 6.99(d,	,J=8.4Hz,1H),7	.04(
1-468	amorphous 'IINMR(CDC3a) \(\delta\) = 1.69(s,311), 1.75(s,311), 2.53(q, J=7.011z,211), 3.78(s,311), 3.79(s,311), 4.07(t, J=7.211z,211), 5.22(t, J=7.011z,111), 5.27(d, J=3.911z,111), 5.71(s,111), 6.91(s,111), 6.91(d, J=8.611z,111), 6.94(s,111), 7.04(t, J=8.41z,111), 7.06(dd, J=8.6,2.111z,111), 7.19 (d, J=2.11tz,111), 7.25(ddd, J=8.4,1.9,1.11tz,111), 7.37(dd, J=12.0,1.91tz,111) IR(CHC13)3578, 1526, 1495, 1280, 1055, 1035cm^- 1	1.69(s,311),1.75 1),5.71(s,1H),6.9 25(ddd,J=8.4,1.9 26,1495,1280,10	(s,3H),2.53(q 1(s,1H),6.91(,1.1Hz,1H),7	(4,J=8.6Hz,1H); (4,J=8.6Hz,1H) (37(dd,J=12.0, 1	3.78(8,3H),3.7; ,6.94(8,1H),7.(9(s,3H),4.07(t,J	=7.2Hz,2II),6. H),7.06(dd,J=€	.22(t,J=7.0Hz,1 8.6,2.1Hz,1H),7	H),
-469	m.p.190-191°C 'HNMR(CDCl ₃) \$\tilde{c}\$ 2.38(s,3H),3.11(s,3H),3.19(s,3H),3.80(s,6H),5.13(s,2H),6.92(s,1H),6.94(s,1H),7.12(d,J=8.7Hz,1H),7.22(d,J=7.8Hz,1H),7.32-7.37(m,4H),7.49(dd,J=2.1,8.4Hz,1H),7.59(d,J=1.8Hz,1H),7.60-7.65(m,2H) IR(KBr)3600-28000(br),1621,1492,1468,1386,1366,1336,1292,1272,1269,1202,1174,1160,1113cm ⁻¹	2.38(s,3H),3.11(7.37(m,4H),7.49(6)	(a,3H),3.19(a, (dd,J=2.1,8.4	,3H),3.80(s,6H) Hz,1H),7.59(d, 66,1336,1292,1	,5.13(8,2H),6. J=1.8Hz,1H),'	92(s,1H),6.94(s 7.60-7.65(m,2H 2,1174,1150,11	,1H),7.12(d,J=)	-8.7Hz,1H),7.25	(d,
1.470	m.p.147-148°C 'HNMR(CDCl ₃) & 2.37(s,3H),3.19(s,3H),3.79(s,3H),3.80(s,3H),5.16(s,2H),6.92(s,1H),6.93(s,1H),7.06(t,J=8.7Hz,1H),7.20-7.2 7(m,3H),7.32-7.41(m,5H),7.60-7.64(m,2H) IR(KBr)3600-2800(br),1523,1492,1462,1454,1379,1359,1299,1278,1264,1210,1175,1161,1129,1054,1031,1009cm ⁻¹	2.37(s,3H),3.19(m,5H),7.60-7.64 (br),1523,1492,1	8,3H),3.79(8,5 (m,2H) 462,1454,137	3H),3.80(6,3H),	6.16(8,2H),6.9 278,1264,1210	2(s,1H),6.93(s,	1H),7.06(t,J=8	3.7Hz,1H),7.20-	7.2
-471	m.p.170-172°C ¹ HNMR(CDCl ₃) δ 3.19(s,3H),3.24(s,3H),3.79(s,3H),3.80(s,3H),5.12(s,2H),6.92(s,1H),6.94(s,1H),7.11(d,J=8.7Hz,1H),7.26-7. ^{30(m,2H)} ,7.32-7.37(m,2H),7.47(dd,J=2.4,8.4Hz,1H),7.61-7.64(m,3H),7.74-7.80(m,1H),8.61-8.63(m,1H) ¹ IR(KBr)3600-2800(br),1522,1491,1462,1361,1296,1224,1177,1149,1115,1030cm ⁻¹	3.19(s,3H),3.24((m,2H),7.47(dd, (br),1522,1491,1.	(a,3H),3.79(a, J=2.4,8.4Hz, 462,1361,129	3H),3.80(s,3H) 1H),7.61-7.64(r 06,1264,1212,1	,5.12(8,2H),6.9 n,3H),7.74-7.8	92(s, 1H), 6.94(s, 10(m, 1H), 8.61-8	1H),7.11(d,J=	8.7Hz,1H),7.26	.7.

188

Table 96

m.p. 174-175 C m.p. 174-176 C m.p. 174-176 C m.p. 174-177 C m.p. 118-5-119-5 C m.p. 118-5-119-6 C m		
		m.p.174-175°C
	1.75	11NMR(CDCE) & 3.19(s, 3H), 3.79(s, 3H), 3.80(s, 3H), 5.33(s, 2H), 6.92(s, 1H), 6.93(s, 1H), 7.07(d, J=8.7Hz, 1H), 7.23-7.23-(m, ZH), 7.
	716-1	32-7.37(m,211),7.41(dd,J=1.8,12.6Hz,111),7.60-7.64(m,3H),7.73-7.79(m,1H),8.60-8.63(m,1H)
		1R(KBr)3600-2800(br),1524,1491,1464,1380,1361,1302,1267,1209,1172,1149,1130,1034,1024,1008cm ⁻¹
		$^4 \text{HNMR}(\text{CDCM}_3) \ \delta - 1.77 (\text{s}, 3\text{H}), 1.80 (\text{d}, \text{J} = 0.911\text{z}, 311), 3.78 (\text{s}, 311), 4.63 (\text{d}, \text{J} = 6.9 \text{Hz}, 211), 5.52-5.57 (\text{m}, 111), 6.73-6.78 (\text{m}, 211), 2.13 ($
	1-473	
		1R(KBr)3600-2800(br),1625,1527,1491,1461,1449,1378,1298,1279,1269,1207,1184,1125,1055,1031cm ⁻¹
		m.p.156-158°C
		$^4 \text{HNMR}(\text{CDCI:}) \ \delta \ 1.77 (\text{s}, 3\text{H}), 1.81 (\text{s}, 3\text{H}), 3.08 (\text{s}, 3\text{H}), 3.80 (\text{s}, 3\text{H}), 3.81 (\text{s}, 3\text{H}), 4.64 (\text{d}, J=6.6\text{Hz}, 2\text{H}), 5.52-5.58 (\text{m}, 1\text{H}), 6.43 (\text{brs}, 1\text{H})$
	1.474	,6.93(s,1H),6.94(s,1H),7.03(t,J=8.4Hz,1II),7.26-7.30(m,3H),7.37(dd,J=1.8,12.6Hz,1H),7.57-7.61(m,2H)
		IR(KBr)3600-2800(br),1526,1495,1463,1382,1325,1300,1267,1210,1166,1139,1129,1054,1032cm ⁻¹
		m.p.158·160°C
	į	4HNMR(CDCH3) δ 1.77(a,3H), 1.81(a,3H), 3.80(a,6H), 4.64(d,J=6.6Hz,2H), 4.73(bra,2H), 5.53·5.57(m,1H), 6.51(bra,1H), 6.93(a,1)
	1.476	H),6.94(s,1H),7.03(t,J=8.7Hz,1H),7.26-7.31(m,3H),7.37(dd,J=2.1,12.6Hz,1H),7.57-7.61(m,2H)
		IR(KBr)3600-2800(br), 1527, 1495, 1462, 1395, 1326, 1299, 1264, 1208, 1170, 1130, 1054, 1031cm ⁻¹
		m.p.138-140°C
	į.	$^{1}\text{HNMR}(\text{CDCI}_{3}) \ \delta \ 1.77(\text{s}, 3\text{H}), 1.81(\text{s}, 3\text{H}), 2.21(\text{s}, 3\text{H}), 3.78(\text{s}, 3\text{H}), 3.80(\text{s}, 3\text{H}), 4.63(\text{d}, J=6.9\text{Hz}, 2\text{H}), 5.53\cdot5.57(\text{m}, 1\text{H}), 6.93(\text{s}, 1\text{H}), 6$
1878 B-1349 1317 1299 1264 1209 1130 1065 10	1.4 /0	94(s,1H),7.03(t,J=8.4Hz,1H),7.20(brs,1H),7.26-7.30(m,1H),7.37(dd,J=2.1,12.6Hz,1H),7.56(m,4H)
		IR(KBr)3600-2800(br), 1666, 1604, 1527, 1494, 1463, 1448, 1379, 1317, 1299, 1264, 1209, 1130, 1055, 1032cm ⁻¹

Table 97

	In.p.200-202°C
	4HNMR(CDCL ₃ +CD ₃ OD) & 1.77(s,3H),1.81(s,3H),3.79(s,3H),3.80(s,3H),4.64(d,J=6.6Hz,2H),5.52-6.57(m,1H),6.93(s,1H),6.9
1.7.1	4(s,111),7.03(t,J=9.011z,111),7.27-7.30(m,111),7.34-7.41(m,311),7.52-7.55(m,211)
	1R(KBr)3600-2800(br),2404,1684,1660,1584,1528,1493,1462,1386,1301,1274,1263,1209,1132,1053,1029cm ⁻¹
	m.p.195-196.5°C
į	¹ HNMR(CDCL3) δ 1.55(8,9H),3.78(8,3H),3.79(8,3H),4.85(в,1H),6.75(brв,1H),6.88-6.92(m,2H),6.92(s,1H),6.93(в,1H),7.31-7.3
£ :-	9(m,:H1),7.45-7.49(m,2H),8.12(t,J=7.5Hz, H1)
	IR(KBr)3600-2800(br),1729,1590,1531,1500,1464,1394,1261,1240,1199,1156,1055,1033,1023cm ⁻¹
	m.p.172-174°C
-	1HNMR(CDCl3) δ 1.55(s,9H),3.19(s,3H),3.79(s,3H),3.80(s,3H),6.75(d,J=2.1Hz,1H),6.92(s,1H),6.94(s,1H),7.26·7.39(m,5H),7.
6/6-1	60.7.65(m,2H)
	IR(KBr)3600-2800(br),1728,1590,1531,1513,1494,1464,1391,1367,1352,1240,1206,1179,1145,1056,1033,1024cm ⁻¹
	m.p.152-153°C
997	HINMR(CDCh) δ 1.74(s,3H),1.77(s,3H),3.18(s,3H),3.78(d,J=9.9Hz,2H),3.79(s,6H),3.93(brs,1H),5.35-5.40(m,1H),6.75(t,J=8
1-460	.4Hz,1H),6.91(s,1H),6.95(s,1H),7.24-7.36(m,4H),7.60-7.65(m,2H)
	IR(KBr)3600-2800(br), 1630, 1530, 1488, 1466, 1380, 1366, 1346, 1259, 1213, 1176, 1149, 1124, 1054, 1027cm-1
	foam
107	$^{1} \text{HNMR}(\text{CDC} _3) \ \delta \ \ 2.40(s,3\text{H}), 3.19(s,3\text{H}), 3.77(s,3\text{H}), 3.78(s,3\text{H}), 6.80(t,d=2.4\text{Hz},1\text{H}), 6.90(s,1\text{H}), 6.91(s,1\text{H}), 7.25-7.36(m,6\text{H}), 7.20(s,1\text{H}), 6.90(s,1\text{H}), 6.91(s,1\text{H}), 7.25-7.36(m,6\text{H}), 7.20(s,1\text{H}), 6.91(s,1\text{H}), 6.91(s,1\text{H}), 7.25-7.36(m,6\text{H}), 7.20(s,1\text{H}), 6.91(s,1\text{H}), 6.91(s$
1-401	58-7.65(m,3H),7.72-7.76(m,2H)
	IR(KBr)3600-2800(br), 1522, 1490, 1366, 1342, 1211, 1164, 1151, 1091, 1053, 1030cm ⁻¹

Table 98

5

	m.p.201-203℃
9	$^{1}\text{HNMR}(\text{CDCL}_3) \circ 2.45 (\text{s}, 3\text{H}), 3.20 (\text{s}, 3\text{H}), 3.82 (\text{s}, 6\text{H}), 6.95 (\text{s}, 1\text{H}), 6.98 (\text{s}, 1\text{H}), 7.32-7.48 (\text{m}, 6\text{H}), 7.61-7.66 (\text{m}, 2\text{H}), 7.80-7.84 (\text{m}, 2\text$
1-482),8.10(d,J=3.3Hz,1H),8.55(d,J=8.4Hz,1H)
	IR(KBr)3600-2800(br), 1671, 1592, 1524, 1494, 1388, 1366, 1328, 1265, 1207, 1172, 1150, 1052, 1024cm ⁻¹
	m.p.132-134°C
	HNMR(CDCL ₁) δ 1.55(s,9H),3.00(s,6H),3.79(s,6H),6.73(d,J=2.4Hz,1H),6.81(m,2H),6.92(s,1H),6.96(s,1H),7.32-7.39(m,2H),
1-483	7.48.7.52(m,211),8.11(t,J=8.111z,111)
	IR(KBr)3600-2800(br), 1728, 1610, 1591, 1533, 1499, 1459, 1446, 1381, 1365, 1238, 1206, 1159, 1055, 1030cm ⁻¹
	foam
	1HNMR(CDCl3) & 1.74(s,3H),1.77(s,3H),3.00(s,6H),3.78(d,J=9.6Hz,1H),3.78(s,3H),3.79(s,3H),5.34·5.38(m,1H),6.75(t,J=8.4
	112,111),6.92(s,111),6.94(s,111),6.93-6.95(m,111),7.23-7.32(m,311),7.48-7.52(m,2H)
	IR(KBr)3600-2800(br), 1625, 1611, 1531, 1494, 1446, 1380, 1340, 1257, 1207, 1123, 1055, 1032cm ⁻¹
	foam
1.485),7.24-7.33(m,4H),7.46-7.50(m,2H),7.60(t,J=9.0Hz,1H),7.71-7.76(m,2H)
	IR(KBr)3600-2800(br), 1609, 1529, 1493, 1446, 1381, 1340, 1208, 1164, 1090, 1054, 1031cm ⁻¹
	m.p.184-186°C
	$1110MR(CDCl_3) \delta - 2.45(s,3H), 3.01(s,6H), 3.80(s,3H), 3.81(s,3H), 6.82(d,J=7.5Hz,2H), 6.95(s,1H), 6.98(s,1H), 7.32(d,J=8.1Hz,2H), 6.98(s,1H), 6.98(s,1H), 6.98(s,1H), 7.32(d,J=8.1Hz,2H), 6.98(s,1H), 6.98(s,1H$
1.486	H),7.40.7.52(m,4H),7.80.7.84(m,2H),8.08(d,J=2.7Hz,1H),8.52(t,J=8.4Hz,1H)
	IR(KBr)3600-2800(br),1647,1608,1530,1497,1379,1365,1284,1267,1206,1051,1030cm ⁻¹

Table 99

55

50	45	40	35	30	25	20	15	10	5
1-487	foam 'HINMR(C 7.26(m,2H 4H2,1H) IR(KBr)36	2.36(s,3H),3.7 7.51(m,2H),7.53 0(br),1611,1594	77(s,611),4.81(3(dd,J=1.5,8.4 1,1520,1498,1.	(brs, 1H),6.69(d [Hz, 1H),7.59(d 469,1444,1369	ld,J=0.9,3.6H l,J=3.6Hz,1H	z, 1H),6.88-6.9),7.73(d,J=0.9]	2(m,2H),6.94(Hz,1H),7.80-7.	DCUs) & 2.36(8,3H),3.77(8,6H),4.81(brs,1H),6.69(dd,J=0.9,3.6Hz,1H),6.88-6.92(m,2H),6.94(8,1H),6.95(8,1H),7.23-8),7.46-7.51(m,2H),7.53(dd,J=1.5,8.4Hz,1H),7.59(d,J=3.6Hz,1H),7.73(d,J=0.9Hz,1H),7.80-7.84(m,2H),8.02(d,J=8.800(br),1611,1594,1520,1498,1459,1444,1369,1259,1208,1170,1129,1092,1051,1028cm ⁻¹	7.23- J=8.
1-488	m.p.219-220°C !!INMR(CDCU;) \$ 2.37(9,3H),3.19(9,3H),3.78(9,3H),6.70(dd,J=0.9,3.6Hz,1H),6.94(9,1H),6.97(8,1H),7.24-7.27(m,2 H),7.32-7.37(m,2H),7.53(dd,J=1.8,8.7Hz,1H),7.60(d,J=3.6Hz,1H),7.61-7.66(m,2H),7.73(d,J=0.9Hz,1H),7.80-7.84(m,2H),8.0 3(d,J=8.7Hz,1H) IR(KB ₁)3600-2800(br),1513,1494,1464,1444,1373,1209,1173,1155,1122,1049cm ⁻¹	2.37(a,3H),3.H 1),7.53(dd,J=1.4)	9(s,311),3.78(s 8,8.7Hz,111),7 ,1464,1444,13	,,311),3.79(a,31 7.60(d,J=3.6H ₂ 373,1209,1173	l),6.70(dd,J≕ 1,1H),7.61-7.6	0.9,3.6Hz,1H), i6(m,2H),7.73(6.94(s, 1H),6.9 d,J=0.9Hz, 1H	7(6,1H),7.24-7.27),7.80-7.84(m,2H	(m,2),8.0
I.489	¹ HNMR(CDCl ₃) δ 3.79(s,3H),3.80(s,3H),3.94(s,3H),5.17(s,2H),5.71(s,1H),6.96(s,1H),6.97(s,1H),6.99(d,J=8.7Hz,1H),7.09(d.d,J=8.74z,1H),7.22(d,J=2.4Hz),7.26(s,1H),7.32-7.49(m,5H),7.66(d,J=8.7Hz,2H),8.09(d,J=8.7Hz,2H) ¹ IR(KBr)3383,1702,1606,1489,1381,1291,1206,1111,1032,1002cm ⁻¹	3.79(s,3H),3.8 1),7.22(d,J=2.4) 1,1606,1489,138	10(s,3H),3.94(Hz),7.26(s,1H 31,1291,1206,	s,3H),5.17(s,2)),7.32-7.49(m,	H),5.71(s,1H) 5H),7.66(d,J=)2cm ⁻¹	,6.96(a,1H),6.9 -8.7Hz,2H),8.0	7(s, 1H),6.99(c 9(d,J=8.7Hz,2	I,J=8.7Hz,1H),7.(H)	.p)(q.
I-490		DC!;j) & 3.12(s,3H),3.79(s,3H),3.81(s,3H),395(s,3H),4 Hz,1H),7.65(d,J=8.7Hz,2H),8.10(d,J=8.7Hz,2H) 20,1607,1492,1362,1275,1211,1112,1057,1032cm ⁻¹	9(s,311),3.81(t z,2H),8.10(d,J 75,1211,1112,	s,311),395(s,31- 1=8.7Hz,2H) 1057,1032cm	1), 5. 18(8, 211),	6.96(s,2H),7.1!	2(d,J=8.4Hz,1]	DChi) & 3.12(a,311),3.79(a,311),3.81(a,311),395(a,311),5.18(a,211),6.96(a,2H),7.12(d,J=8.4Hz,1H),7.31.7.53(m,6H),7. Hz,1H),7.65(d,J=8.7Hz,2H),8.10(d,J=8.7Hz,2H) 20,1607,1492,1362,1275,1211,1112,1057,1032cm ⁻¹	H),7.
1.491	IINMR(CDCl ₃) δ 3.12(a,3H),3.80(a,3H),3.81(a,3H),5.18(a,2H),6.92(a,1H),6.96(a,1H),7.13(d,J=8.4Hz,1H),7.31-7.52(m,6H),7.70(d,J=2.1Hz,1H),7.66-7.77(m,4H) 10(d,J=2.1Hz,1H),7.66-7.77(m,4H) 1R(KB ₇)3433,1685,1606,1509,1492,1372,1318,1264,1211,1183,1111,1055,1031cm ⁻¹	DCl ₃) & 3.12(e,3H),3.80(Hz,1H),7.66-7.77(m,4H) 33,1685,1606,1609,1492)(e,311),3.81(s 1) 12,1372,1318,	,3H),5.18(s,2H	I),6.92(s,1H), 33,1111,1055,	5.96(s, 1H), 7.13 1031cm ⁻¹	3(d,J=8.4Hz,1]	H),7.31-7.52(m,6l	1),7.
1-492	¹ HNMR(CDCl ₃) δ 3.79(8,3H),3.80(8,3H),5.17(8,2H),5.71(8,2H),6.91(8,1H),6.97(8,1H),7.00(d,J=8.4Hz,1H),7.08(dd,J=8.4&2.4 Hz,1H),7.22(d,J=2.4Hz,1H),7.32-7.49(m,5H),7.70(8,4H) IR(KBr)3291,2242,1607,1579,1488,1384,1324,1272,1209,1130,1054,1034,1001cm ⁻¹	3.79(s,3H),3.8(.4Hz,1H),7.32- .1607,1579,148)(e,3H),5.17(e 7.49(m,5H),7. 18,1384,1324,	,2H),5.71(s,2F 70(s,4H) 1272,1209,113	I),6.91(s,1H),1 10,1054,1034,	6.97(s,1H),7.00 1001cm ⁻¹)(d,J=8.4Hz,1]	H),7.08(dd,J=8.4	£2.4

Table 100

	$^{1}\text{HNMR}(\text{CDCL}_3) \ \delta \ \ 3.12(9,3\text{H}), 3.80(9,3\text{H}), 3.81(9,3\text{H}), 5.18(9,2\text{H}), 6.92(9,1\text{H}), 6.96(9,1\text{H}), 7.12(d,J=8.4\text{Hz},1\text{H}), 7.31\cdot7.72(m,6\text{H}), 7.12(m,6\text{H}), 7.$
1.493	60(d,J=1.8Hz,1H),7.65·7.74(m,4H)
	IR(KBr)2223,1604,1490,1363,1296,1264,1213,1172,1117,1055,1036,1026cm ¹
	111NMR(CDCl3) & 1.77(s,311), 1.81(s,311), 3.23(s,311), 3.80(s,311), 3.81(s,311), 3.95(s,311), 4.64(d,J=6.6Hz,2H), 5.51(t,J=6.6Hz,1H
1-494), $6.96(8,211)$, $7.06(d.J=8.7112,111)$, $7.50(d.d.J=8.7&2.1112,111)$, $7.59(d.J=2.1112,111)$, $7.69(d.J=8.7112,211)$, $8.10(d.J=8.7112,211)$
	IR(KBr)1720,1608,1508,1492,1384,1357,1273,1179,1110,1026,1019cm ¹
	$ \text{HINMR}(\text{CDCH}_3) \delta = 2.38(\text{s},311), 3.12(\text{s},311), 3.80(\text{s},611), 3.81(\text{s},311), 3.95(\text{s},311), 5.14(\text{s},211), 6.96(\text{s},211), 7.13(\text{d},\text{J}=8.4\text{Hz},111), 7.21(\text{d},\text{J}=8.4\text{Hz},111), 7.21(\text{d},\text{J}=$
1.495	J=7.8Hz,2H),7.35(d,J=7.8Hz,2H),7.49(d.d,J=8.4&1.8Hz,1H),7.60(d,J=1.8Hz,1H),7.65(d,J=8.7Hz,2H),8.10(d,J=8.7Hz,2H)
	IR(KBr)1697,1607,1492,1364,1286,1263,1213,1178,11115,1057,1030cm · 1
1.496	1-496 IR(KBr)1730,1701,1610,1515,1465,1359,1238,1186,1116,1082,1064,1016cm ⁻¹
	111NMR(CDC13) \$\delta\$ 1.75(8,3H), 1.80(8,3H), 2.89(8,6H), 3.21(8,3H), 3.44(8,3H), 3.68(8,3H), 3.77(8,1H), 4.61(d, J=8.4Hz, 2H), 5.49(t, J
107	=8.4Hz,1H),6.92(s,1H),7.01(d,J=8.4Hz,1H),7.25-7.28(m,3H),7.33(d,J=2.1Hz,1H),7.52(dd,J=8.4&1.8Hz,1H),7.66(d,J=2.4Hz,
1.43/	IH)
	IR(KBr)1727,1598,1515,1467,1360,1295,1258,1241,1116,1084cm ⁻¹
	1HNMR(CDC13) & 2.38(8,3H), 2.89(8,6H), 3.10(8,3H), 3.44(8,3H), 3.66(8,3H), 3.77(8,3H), 5.11(8,3H), 6.93(8,1H), 7.06-7.15(m,2H),
I-498	7.17-7.29(m,4H),7.31-7.37(m,3H),7.53(d.d,J=8.7&1.8Hz,1H),7.66(dJ=1.8Hz,1H)
	IR(KBr)1732,1701,1598,1518,1466,1352,1294,1121,1085,1060,1015cm ⁻¹
	1HNMR(CDCl ₃) δ 2.88(s,6H),3.44(s,3H),3.64(s,3H),3.77(s,3H),5.17(s,2H),5.65(s,1H),6.84(dd,J=8.1&2.1Hz,1H),6.92(s,1H),6
1.499	.95(d,J=8.1Hz,1H),7.01(d,J=2.1Hz,1H),7.12(d,J=8.4Hz,1H),7.31·7.46(m,6H),7.53(d.d,J=8.4&1.8Hz,1H),7.66(d,J=1.8Hz,1H)
	IR(KBr)3526,3434,1732,1598,1515,1460,1344,1260,1240,1222,1061,1013cm ⁻¹

Table 101

1.500	HNMR(CDCl3) & 2.60(8,3H),3.43(8,3H),3.72(8,3H),5.75(8,3H),5.17(8,2H),5.67(8,1H),6.77(8,1H),6.94(dd,J=8.4&1.8Hz,1H),7.02(d,J=8.4Hz,1H),7.06(d,J=1.8Hz,1H),7.32.7.50(m,7H),7.53-7.62(m,1H),7.94(d,J=7.8Hz,1H) 1R(KBr)1732,1719,1585,1521,1481,1403,1352,1289,1253,1122,1073,1012cm-1
1.501	¹ HNMR(CDCl ₃) δ 2.73(s,3H),3.12(s,3H),3.43(s,3H),3.72(s,3H),3.76(s,3H),5.19(s,2H),6.78(s,1H),7.15(d,J=8.4Hz,1H),7.31-7. 63(m,10H),9.96(d,J=6.6Hz,1H) 1R(KBr)1726,1609,1520,1480,1400,1371,1294,1262,1179,1076,1009cm ⁻¹
1.502	HINMR(CDCL3) & 1.78(s,3H), 1.81(s,3H), 3.22(s,3H), 3.48(s,3H), 3.71(s,3H), 3.77(s,3H)), 3.82(s,3H), 4.66(d,J=6.9Hz,2H), 5.56(t,J=6.9Hz,1H), 6.62(s,1H), 6.70(s,1H), 7.11(s,1H), 7.38(d,J=8.7Hz,1H), 7.69(d,J=8.7Hz,1H) IR(KBr)1699, 1607, 1587, 1516, 1468, 1354, 1216, 1162, 1067, 1044, 1004cm ⁻¹
1-503	¹ HNMR(CDCh;) δ 1.78(a,3H),1.81(a,3H),3.21(a,3H),3.78(a,3H),3.72(a,3H),3.74(a,3H),3.82(a,3H),4.33(d,J=11.7Hz,1H),4.54(d,J=11.7Hz,1H),4.64(d,J=11.7Hz,1H),4.64(d,J=11.7Hz,1H),6.68(a,1H),6.69(a,1H),6.89(a,1H),7.38(d,J=8.7Hz,2H),7.73(d,J=8.7Hz,2H) z,2H) IR(KBr)3530,1609,1515,1467,1356,1214,1174,1151,1075,1039,1004cm ⁻¹
I-504	-HINMR(C:DCH ₃) δ 1.77(s, 3H), 1.80(s, 3H), 3.22(s, 3H), 3.45(s, 3H), 3.75(s, 3H), 3.77(s, 3H), 3.81(s, 3H), 4.62(d, J=6.9Hz, 2H), 5.55(t, J=6.9Hz, 1H), 6.64(s, 1H), 6.77(s, 1H), 6.97(s, 1H), 7.39(d, J=8.7Hz, 2H), 7.72(d, J=8.7Hz, 2H)
1.505	'HNMR(CDCL:) & 1.77(s,3H),1.80(s,3H),2.94(broad,1H),3.47(s,3H),3.72(s,3H),3.73(s,3H),3.81(s,3H),4.32(s,1H),4.36(s,1H),4.66(d,1=6.6Hz,2H),5.34(s,1H),5.57(t,J=6.6Hz,1H),6.69(s,1H),6.89(s,1H),6.89(s,1H),6.91(d,J=8.1Hz,2H),7.56(d,J=8.1Hz,2H),117(iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
1.506	¹ HNMR(CDCl ₃) δ 1.76(s,3H), 1.79(s,3H),3.44(s,3H),3.74(s,3H),3.76(s,3H),3.80(s,3H),4.63(d,J=7.2Hz,2H),5.30(s,1H),5.49. 5.60 (m, 1H), 6.63(s,1H),6.78(s,1H),6.94(d,J=8.7Hz,2H),6.97(s,1H),7.54(.d,J=8.7Hz,2H) IR(KBr)3382,1726,1699,1611,1519,1470,1206,1174,1143,1074,1056,997cm. ¹

. Table 102

· · · · · · · · · · · · · · · · · · ·	HNMR(CDCB) 6 1.77(s,3H), 1.79(s,3H), 3.41(s,3H), 3.60(8,3H), 3.44(s,3H), 3.44(s,3H), 3.41(s,3H), 4.30(s,3H), 4.30(s,3H), 4.40(s,3H), 4.40(
	14, 111), 5.52-5.60(m, 111), 5.63(s, 111), 5.73(s, 111), 6.51(a, 6-5.1112, 411), 6.52-6, 6.1113, 6.51(s, 111),
	HREEN 1734 1612 1520 1475 1441 1395 1337,1267,1215,1173,1140,1017,cm ⁻¹
	111NMR(CDC31) & 3.21(8,311), 3.45(8,311), 3.73(8,311), 4.41-4.62(m,211), 5.16(8,211), 5.71(8,111), 6.79(d,d,J=8.1&2.1112,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,111), 6.84(8,1
	.111),6.92(d,J=2.1Hz,1H),7.01(d,J=8.1Hz,1H),7.32·7.50(m,7H),7.71(d,J=8.4Hz,2H)
	IR(KBr)3496,3255,1607,1590,1528,1473,1464,1358,1247,1147,1071,1017cm ⁻¹
	HINMR(CDCl ₃) 6 3.21(8,3H),3.45(8,3H),3.73(8,3H),3.89(8,3H),4.51(d,J=6.3Hz,2H),5.20(8,2H),6.80(d.d,J=8.1&2.1Hz,1H),6.
	85(8,111),6.89(d,J=2.1Hz,111),6.97(d,J=8.111z,111),7.29.7.51(m,711),7.71(d,J=8.7Hz,2H)
	IR(KBr)3412,1603,1586,1515,1464,1364,1242,1175,1151,1081,1020,1006cm ⁻¹
	HNMR(CDCI3) & 1.76(8,3H), 1.80(8,3H), 3.22(8,3H), 3.45(8,3H), 3.73(8,3H), 3.87(8,3H), 4.52(8,2H), 4.64(d, J=6.6Hz, 2H), 5.57(t, J
	=6.611z,111),6.83(dd,J=7.5&1.2Hz,1H),6.86(d,J=1.2Hz,1H),6.96(d,J=7.5Hz,1H)
	433, 1598, 1579, 1517, 1469, 1372, 1244, 1221, 1174, 1149, 1072, 1017cm ⁻¹
	14NMR(CDC13) & 2.36(e,3H),3.21(e,3H),3.45(e,3H),3.72(e,3H),3.88(e,3H),4.50(e,2H),5.16(e,2H),6.80(dd,J=8.1&2.1Hz,1H),6
	6.88(d, J=2.1Hz, 1H), 6.97(d, J=8.1Hz, 1H), 7.20(d, J=8.4Hz, 2H), 7.33·7.42(m, 4H), 7.71(d, J=8.4Hz, 2H)
	IR(KBr)3502,1604,1510,1465,1383,1360,1266,1239,1227,1147,1071,1008cm ⁻¹
	HNMR(CDCl ₃) δ 3.45(6,3H), 3.72(6,3H), 3.89(6,3H), 4.48(6,2H), 5.20(8,2H), 6.81(dd, J=8.1&2.1Hz,1H), 6.86(6,1H),6.88-
	6.99 (m, 4H), 7.27-7.43 (m,3H), 7.46-7.54(m,4H)
	IR(KBr)3528, 1610, 1591, 1617, 1474, 1461, 1438, 1388, 1263, 1239, 1173, 1140, 1017, cm ⁻¹
_	14 NMR(CDCl3) & 1.75(8,3H), 1.79(8,3H), 2.47(broads, 1H), 3.45(8,3H), 3.73(8,3H), 3.86(8,3H), 4.52(8,2H), 4.63(d, J=6.6Hz, 2H), 5.
1.513 16(8,1H),5.56(d,	16(8,1H),5.56(d,J=6.6Hz,1H),6.82-6.97(m,6H),7.53(d,J=9.0Hz,2H)
	IR(KBr)3477,3246,1609,1586,1518,1464,1439,1387,1266,1240,1221,1173,1141,1079,1011,1002cm-1

Table 103

	¹ HINMR(CDCl ₃) & 2.36(s, 3H), 2.48(broad, 1H), 3.44(s, 3H), 3.72(s, 3H), 3.88(s, 3H), 4.50(s, 2H), 5.16(s, 3H), 6.76-6.98(m, 6H),
1-514	7.19 (d, J=7.811z, 211), 7.36(d,J=7.811z,211),7.52(d,J=8.711z,211)
	HR(KBr);35/44,3239,1614,1593,1519,1463,1386,1266,1240,1218,1173,1139,1074,1010cm ⁻¹
	m.p.159.160°C
i.	$ \text{HINMR}(\text{CDCI}_3) \ \delta \ \ 3.19(\$,3H), 3.34(\$,3H), 3.79(\$,3H), 5.18(\$,3H), 5.18(\$,3H), 5.18(\$,3H), 6.92(\$,1H), 6.93(\$,1H), 7.08(\$,3H), 7.08(\$,3H),$
1-010	z,1H),7.33·764(m,11H)
	IR(KBr)3433,2937,1694,1520,1492,1369,1288,1243,1211,1176,1150,1100cm '
3.1	111NMR(CDCD) & 2.91(s, 3H), 3.777(s, 3H), 3.783(s, 3H), 4.85(brs, 1H), 5.12(s, 2H), 6.87-7.00(m, 7H), 7.32-7.50(m, 7H)
016-1	IR(KBr)3432,2938,1609,1590,1525,1494,1380,1254,1207,1174,1152,1058,1031cm ⁻¹
	m.p.213-215°C
1	$^{1} \text{HNMR}(\text{CDCL}_3) \ \delta 2.99 (s, 3H), 3.779 (s, 3H), 3.804 (s, 3H), 4.86 (brs, 1H), 5.16 (s, 2H), 6.83 (brs, 1H), 6.93 (s, 1H), 6.94 (s, 1H), 7.06 (d, J=1.00), 2.00 (s, 2H), 2.$
1.0.1	8.7Hz,1H),7.35(dd,J=2.1,8.7Hz,1H),7.41-7.49(m,7H),7.81(d,J=2.1Hz,1H)
	IR(KBr)3409,3374,1610,1525,1491,1371,1321,1251,1208,1145,1120,1037cm ⁻¹
	powder
01.2	$^{1}\text{HNMR}(\text{CDC} _{3}) \delta 1.75(\text{s},3\text{H}), 1.81(\text{s},3\text{H}), 2.84(\text{s},3\text{H}), 3.21(\text{s},3\text{H}), 3.22(\text{s},3\text{H}), 3.55(\text{s},3\text{H}), 3.79(\text{s},3\text{H}), 3.93(\text{s},3\text{H}), 4.67(\text{d},J=7.2\text{Hz}, 3.93(\text{s},3\text{Hz}), 3.93(\text$
010-1	2H),5.59(m,1H),6.85(s,1H),7.36-7.42(m,2H),7.62(d,J=2.1Hz,1H),7.65-7.70(m,2H),7.86(d,J=2.1Hz,1H)
	IR(CHCl ₃)3026,2940,1728,1510,1473,1373,1179,1150,1086cm ⁻¹
	powder
012	$HNMR(CDCL_3) \ \delta \ 1.69(s,3H), 1.74(s,3H), 2.52 \cdot 2.61(m,2H), 2.86(s,3H), 3.20(s,3H), 3.21(s,3H), 3.56(s,3H), 3.79(s,3H), 3.93(s,3H), 3.$
616-1	4.21(t,J=6.9Hz,2H), 5.26(m,1H), 6.86(s,1H), 7.36-7.42(m,2H), 7.62(d,J=2.1Hz,1H), 7.65-7.70(m,2H), 7.86(d,J=2.1Hz,1H)
	IR(CHCl ₃)3024,2939,1729,1511,1475,1447,1373,1179,1150,1085cm ⁻¹

Table 104

1.520	powder HINMR(CDCh.) & 2.84(s,3H),3.21(s,3H),3.22(s,3H),3.56(s,3H),3.81(s,3H),3.88(s,3H),5.30(s,2H),6.86(s,1H),7.26-7.32(m,1H), 7.37-7.42(m,2H),7.65-7.72(m,4H),7.76-7.83(m,1H),7.92(d,J=2.1Hz,1H),8.60-8.63(m,1H) IR(KBr)3434,3019,2940,1730,1611,1474,1367,1178,1151,1082cm ⁻¹
1-621	powder ¹ HNMR(CDCl ₃ +CD ₃ OD) δ 1.69(s,3H), 1.77(s,3H), 2.51-2.58(m,2H), 3.43(s,3H), 3.73(s,3H), 4.23(t,J=6.6Hz,2H), 6.44(s,1H), 6.89 ¹ 6.95(m,2H), 7.24(d,J=1.8Hz,1H), 7.46-7.52(m,2H), 7.65-7.67(m,1H) ¹ IR(KBr)3434,2934,1716,1611,1402,1226,1116,1082,1027cm
1-522	m.p.240-243°C 'HNMR(CDCl ₃ +CD ₃ OD) δ 3.44(s,3H),3.75(s,3H),5.31(s,2H),6.46(s,1H),6.89-6.95(m,2H),7.30-7.31(m,1H),7.35-7.42(m,2H),7.35-7.53(m,2H),7.56(d,J=2.4Hz,1H),7.79-7.86(m,1H),8.65-8.68(m,1H) IR(IKBr)3411,2937,1683,1611,1521,1406,1230,1115,1082,1026cm ⁻¹
1.523	m.p.136-137°C !!INMIK(CDCL;) & 2.25(8,311),2.29(8,311),3.12(8,311),3.20(8,311),5.18(8,211),7.11(8,111),7.14(8,111),7.23-7.51(m,1211) !R(KBr)1518,1488,1357,1263,1170,1150,1110,970,873,848,809cm-'
1-524	m.p.121-122°C 'HNMR(CDCl ₃) δ 1.77(s,3H),1.82(s,3H),2.25(s,3H),2.29(s,3H),3.20(s,3H),3.23(s,3H),4.64(d,J=6.6Hz,2H),5.52(t,J=6.6Hz,1H),7.06(d,J=8.411z,1H),7.11(s,1H),7.14(s,1H),7.24(d,J=2.1Hz,1H),7.31-7.45(m,5H) 1R(KBr)1518,1487,1363,1170,1150,1108,970,869,848,808cm ⁻¹
1-525	m.p.149-151°C !HNMR(CDCl ₃) δ 1.77(s,3H),1.83(d,J=0.6Hz,3H),2.26(s,3H),2.28(s,3H),4.62(d,J=6.9Hz,2H),4.80(s,1H),5.53(m,1H),5.72(s,1 H),6.82(dd,J=2.1,8.4Hz,1H),6.85-6.94(m,3H),6.96(d,J=2.1Hz,1H),7.10(s,1H),7.12(s,1H),7.21-7.28(m,2H) IR(KBr)3521,3395,1612,1584,1522,1490,1457,1285,1263,1242,1200,1170,1125,1014,834cm ⁻¹

Table 105

										·
1.526	foam !!INMR(C J=3.3,1.6f ,111),7.69((1) (1) (2) (3) (3) (4) (4) (4) (4) (4) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	13(8,3H),2.7 (8,1H),7.12 2H),7.78(d,	foam HINMR(CDCl ₃) & 2.43(a,3H),2.76(a,3H),2.90(a,3H),3.22(a,3H),3.56(a,3H),3.4 J=3.3, I.6Hz, 1H),6.85(a,1H),7.12,(d,J=8.4Hz,1H),7.32(d,J=8.7Hz,2H),7.34~ ,1H),7.69(d,J=8.7Hz,2H),7.78(d,J=8.7Hz,2H) IR(Nujol)1608,1597,1519,1480,1464,1176,1152,1087,972,875,817,798cm ⁻¹	,3II),3.22(s,3] H),7.32(d,J=8	H),3.56(s,3H), .7Hz,2H),7.34	foam HINMR(CDCl ₃) δ 2.43(s,3H),2.76(s,3H),2.90(s,3H),3.22(s,3H),3.56(s,3H),3.80(s,3H),5.30(s,2H),6.28(t,J=3.3Hz,1H),6.42(dd,J=3.3,1.6Hz,1H),6.85(s,1H),7.12,(d,J=8.4Hz,1H),7.32(d,J=8.7Hz,2H),7.34~7.37(m,2H),7.39(d,J=8.7Hz,2H),7.40(d,J=1.8Hz,1H),7.69(d,J=8.7Hz,2H),7.78(d,J=8.7Hz,2H) HR(Nujol) 1608, 1597, 1519, 1480, 1464, 1176, 1152, 1087, 972, 875, 817, 798cm ⁻¹	0(e,2H),6.28(t,	J=3.3Hz,1H;),6.42(dd,
1-527		(DCL ₃) & 2.9 ,7.31,(dd,J=	16(6,311),3.2 =8.4,1.8Hz, 519,1480,1	(1) (2) (4) (3) (4) (3) (4) (3) (4) (3) (4) (3) (4) (3) (5) (6) (3) (1) (5) (6) (6) (7) (7) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	,3H),3.52(8,3H 1.8Hz,1H),7.3 1,1079,970,94	II),3.77(a,3II), 8(d,J=8.7Hz,2 7,876,798,748	foam HINMR(CDCE) δ 2.96(a,3H),3.21(a,3H),3.37(a,3H),3.52(a,3H),3.77(a,3H),5.58(a,2H),6.84(a,1H),7.19(d,J=8.4Hz,1H),7.24~7. 28(m,4H),7.31,(dd,J=8.4,1.8Hz,1H),7.33(d,J=1.8Hz,1H),7.38(d,J=8.7Hz,2H),7.67(d,J=8.7Hz,2H) IR(Nujol)1664,1609,1519,1480,1457,1176,1151,1079,970,947,876,798,748cm ⁻¹	1(8,1H),7.19(d,	J=8.411z,111.),7.24~7
1.528		DCh) & 2.7 8.1Hz,1H), 3H),7.65(m, 608,1593,1	73(s,311),2.9 7.18(brdd,J 1H),7.67(d,	foam 'HNMR(CDCl ₃₁) & 2.73(s,311),2.94(s,311),3.21(s,311),3.33(t,J=6.3Hz,2H),3.56),7.14(d,J=8.1Hz,1H),7.18(brdd,J=7.8,5.1Hz,1H),7.33(brd,J=7.8Hz,1H),7.35 ,J=8.7Hz,2H),7.65(m,1H),7.67(d,J=8.7Hz,2H),8.56(brd,J=5.1Hz,1H) IR(Nujol)1608,1593,1520,1479,1466,1177,1151,1079,970.872,816,798cm ⁻¹	,3H),3.33(t,J= 1),7.33(brd,J= 3.56(brd,J=5.1)	=6.3Hz,2H),3. :7.8Hz,1H),7.; [Hz,1H)	foam HNMR(CDCh) & 2.73(8,3H),2.94(8,3H),3.21(8,3H),3.33(t,J=6.3Hz,2H),3.55(8,3H),3.77(8,3H),4.55(t,J=6.3Hz,2H),6.83(8,1H 1,7.14(d,J=8.1Hz,1H),7.18(brdd,J=7.8,5.1Hz,1H),7.33(brd,J=7.8Hz,1H),7.35(dd,J=8.1,1.8Hz,1H),7.37(d,J=1.8Hz,1H),7.38(d 1,1.8Hz,1H),7.65(m,1H),7.67(d,J=8.7Hz,2H),8.56(brd,J=5.1Hz,1H) 1,1.8Hz,2H),7.65(m,1H),7.67(d,J=8.7Hz,2H),8.56(brd,J=5.1Hz,1H) 1,2.8Hz,2H),7.6Hz,2H,2H,2H,2H,2H,2H,2H,2H,2H,2H,2H,2H,2H,	8,3H),4.55(t,J=8Hz,1H),7.37(=6.3Hz,2H),6 d,J=1.8Hz,1F	1.83(s, 1H
1.529	m.p.203-205	J5℃ ASO-d ₆) δ ; 3H),7.48,(d 599,1518,1	2.42(s,3H),5 ,J=8.7Hz,2 480,1466,1	05°C MSO-de) & 2.42(s,3H),2.80(s,3H),3.45(s,3H),3.51(s,3H),3.56(s,3F,3H),7.48,(d,J=8.7Hz,2H),7.74(d,J=8.7Hz,2H) 599,1518,1480,1466,1176,1081,1013,976,870,830,797,755cm ⁻¹	5(8,3H),3.51(8 ,7Hz,2H)	,3H),3.56(s,3I	m.p.203-205 $\mathbb C$ HNMR(DMSO-d ₆) δ 2.42(s,3H),2.80(s,3H),3.45(s,3H),3.51(s,3H),3.56(s,3H),3.78(s,3H),5.36(s,2H),7.07(s,1H),7.23(s,1H),7.2 $6 \sim 7.28 (m,3H),7.48,(d,J=8.7Hz,2H),7.74(d,J=8.7Hz,2H)$ IR(Nujol)1599,1518,1480,1466,1176,1081,1013,976,870,830,797,755cm $^{-1}$.36(s,2H),7.07	(8,1H),7.23(8	,1H),7.2
1-530	foam 1HNMR(CI 2,1H),7.06(IR(Nujol)3:	D ₃ OD) & 3.3 d,J=8.4Hz, 304,161,159	38(s,3H),3.6 1H),7.27(m 90,1522,148	foam ¹HNMR(CD₃OD) δ 3.38(s,3H),3.68(s,3H),5.41(s,2H),6.44(s,1H),6.82(dd,J=8.4,2.1Hz,1F z,1H),7.06(d,J=8.4Hz,1H),7.27(m,2H),7.46(d,J=8.7Hz,2H),7.60(m,2H) IR(Nujol)3304,161,1590,1522,1488,1458,1254,1115,1074,1046,1014,942,825.745cm ⁻¹	3,2H),6.44(s, 1; 8.7Hz,2H),7.0	H),6.82(dd,J= 60(m,2H)	foam !HNMR(CD ₃ OD)	.6.85(d,J=8.7H	[z,2H),6.93(d	,J=2.1H

Table 106

	m.p.159-162°C
	$^{\rm HNMR(I)MSO-d_6)} \delta 2.92 (s,311), 3.41 (s,311), 3.45 (s,311), 3.52 (s,311), 3.79 (s,311), 5.33 (s,211), 7.09 (s,111), 6.82 \\ \sim 7.46 (m,311), 7.49 (d,311), 7.49 $
	,J=9.0Hz,2H),7.75(d,J=9.0Hz,2H)
	IR(Nujoi)1604,1519,1481,1469,1235,1171,1154,1085,1012,967,874,849,798cm ⁻¹
	m.p.214-216°C
	$HINMIR(DMSO-46) \ \delta \ 2.84(8,311), 3.42(8,311), 3.45(8,311), 3.52(8,311), 3.73(8,311), 3.73(8,311), 4.99(8,211), 7.08(8,111), 7.24(4J=9.3H=0.3H=0.3H=0.3H=0.3H=0.3H=0.3H=0.3H=0$
1-5:32	z, 111),7.29(dd,J=9.3,1.811z, 111),7.30(d,J=1.811z,111),7.48(d,J=8.711z,211),7.74(d,J=8.711z,211)
	IR(Nujol) 1767, 1606, 1521, 1481, 1463, 1216, 1175, 1151, 1080, 1013, 977, 946, 878, 821, 798cm-1
	m.p.225-227°C
1	$^{\rm 1} {\rm HNMR(I)MSO-} d_{\rm d}) \ \delta \ 2.86 (s, 3H), 3.45 (s, 3H), 3.46 (s, 3H), 3.52 (s, 3H), 3.78 (s, 3H), 4.46 (s, 2H), 7.08 (s, 1H), 7.20 (d, J=8.4Hz, 1H), 7.28 (s, 2H), 7.28 (s, $
1.033	-7.32(m,211),7.48(d,J=8.711z,2H),7.74(d,J=8.711z,2H)
	IR(Nujol)3340, 1677,1619,1519,1477,1463,1443,1176,1150,1088,971,871,829,794cm ⁻¹
	foam
	"HINMR(DMSO-ds) & 2.96(8,3H),3.45(8,3H),3.47(8,3H),3.52(8,3H),3.79(8,3H),4.64(8,2H),7.08(8,1H),7.18(d,J=8.4Hz,1H),7.31
1-534	(dd,J=8.4,1.811z,1H),7.34(d,J=1.8Hz,1H),7.48(d,J=8.7Hz,2H),7.74(d,J=8.7Hz,2H)
	IR(Nujol)3464,3362,1693,1606,1520,1481,1176,1151,1080,876,822,799cm ⁻¹
	m.p.163-165°C
	1HNMR(CDCl ₃) & 2.73(9,3H),3.16(8,3H),3.21(8,3H),3.55(8,3H),3.78(8,3H),4.85(ddd,J=1.5,1.5,5.4Hz,2H),5.25(8,2H),5.31,(dd
1.535	d,J=1.5,3.0,10.5,Hz,1H),5.43(ddd,J=1.5,3.0,17.1Hz,1H),6.05(ddd,J=5.4,10.5,17.1Hz,1H),6.84(s,1H),7.11(d,J=8.7Hz,1H),7.3
	4(dd,J=2.1,8.7Hz,1H),7.38(d,J=8.4Hz,2H),7.41(d,J=2.1Hz,1H),7.56(d,J=8.4Hz,2H),7.67(d,J=8.4Hz,2H),8.11(d,J=8.4Hz,2H)
	IR(KBr)1718,1612,1519,1481,1365,1273,1177,1151,1119,1080,1015,969,876cm ⁻¹

Table 107

45	m.p.115-117°C HNMR(CDCR)	m. p. 227-229°C; 1HNMR(CDCh) & 2.73(s,3H),3.16(s,3H),3.21(s,3H),3.54(s,3H),3.77(s,3H),5.26(s,2H),6.83(s,1H),7.11(d,J=12.3Hz,2H),7.32(s,1H),7.37(d,J=12.3Hz,2H),7.57(d,J=12.3Hz,1H),7.66(d,J=12.3Hz,2H),8.13(d,J=12.3Hz,2H) 1R(KBr)3430,1694,1612,1519,1481,1365,1177,1151,1079,875,798cm ⁻¹	m.p.149-151°C HNMR(CDCl ₃) δ 2.66(8,3H),3.13(8,3H),3.21(8,3H),3.55(8,3H),3.68(8,2H),3.77(8,3H),5.17(8,2H),6.84(8,1H),7.13(d,J=8.4Hz,1H),7.13(d,J=8.4Hz,2H),7.30-7.55(m,4H),7.38(d,J=8.4Hz,2H),7.67(d,J=8.4Hz,2H),7.67(m,2H) R(KBr)3423,1716,1610,1619,1481,1365,1235,1177,1161,1119,1080,876,798cm ⁻¹	m.p.144·146°C 1HNMR(CDCl ₃) δ 2.32(8,3H),2.69(8,3H),3.14(8,3H),3.21(8,3H),3.56(8,3H),3.78(8,3H),5.18(8,2H),6.84(8,1H),7.14(d,J=8.7Hz,1.13),7.15(d,J=8.4Hz,1H),7.38(d,J=8.4Hz,2H),7.40(d,J=2.1Hz,1H),7.48(d,J=8.7Hz,2H),7.67(d,J=8.4Hz,2H) 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-539 1-5	m.p.228-231°C 1HNMR(CDCl ₃) δ 2.81(e,3H),3.20(e,3H),3.21(e,3H),3.55(e,3H),3.78(e,3H),5.30(e,2H),6.85(e,1H),7.11(d,J=8.4Hz,1H),7.35(dd -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -540 -
40	2.68(s,3H),3.13 ,3.0,10.5,Hz,1H) 1Hz,2H),7.34(d	2.73(s,3H),3.16(Hz,2H),7.41(s,1H	2.66(a,3H),3.13(1),7.38(d,J=8.4H 1610,1519,1481	2.32(s,3H),2.69(2.1H),7.34(dd,J=	2.81(a,3H),3.20(a
35	(s,3H),3.21(s,5),5.28(ddd,J=1)d,J=2.1,8.4Hz	s,3H),3.21(s,3 H),7.57(d,J=12 1.365,1177,11	(s,3H),3.21(s,3 [z,2H),7.67(d,4 1366,1235,11	(s,3H),3.14(s,3 :2.1,8.4Hz,1H)	m.p.228-231°C !HNMR(CDC);)
30	3H), 3.55(8, 3H), 3.55(8, 3H), 1.5, 3.0, 16, 8Hz, 1.1H), 7.38(d, J=1.119, 1079.	H),3.54(8,3H), 2.3Hz,1H),7.66	iH),3.55(8,3H), J=8.4Hz,2H),7 77,1161,1119,	.H),3.21(8,3H),),7.38(d,J=8.4I 79,876,797cm	H),3.55(8,3H),3 1Hz,1H),7.67(
25	3.68(s,2H),3.7 111),5.91(ddd,s 8.4Hz,2H),7.4	3.77(s,3H),5.2(d,J=12.3Hz,2	3.68(s,2H),3.7 .67(m,2H) 1080,876,798c	3.56(s,3H),3.7 Iz,2H),7.40(d,	8.78(s,3H),5.30 d,J=8.4Hz,2H)
20	8(a,3H),4.61(c)=5.7,10.5,16,0(d,J=2.1Hz,	5(8,2H),6.83(9 H),8.13(d,J=1	7(s,3H),5.17(e m ⁻¹	8(e,3H),5.18(e]=2.1Hz,1H),7	(8,2H),6.85(s,
15	idd,J=1.5,1.5 8Hz,1H),6.84 IH),7.42(d,J=	2.3Hz,2H)	,2H),6.84(e,1	,2H),6.84(s,1	1H),7.11(d,J= Hz,2H),8.28(c
10	,5.7Hz,2H),5.1 (8,1H),7.13(d,	=12.3Hz,2H),7	H),7.13(d,J=8	H),7.14(d,J=8,	-8.4Hz,1H),7.3 1,J=8.7Hz,2H)
5	7(8,2 =8.4 8(d,J	.32(8	4Hz,	7Hz, =8.4	2(dd

200

Table 108

H-541 51 38	m.p.153-156°C 'HINMR(CDCU ₃) δ 1.53(s,9H),2.69(s,3H),3.15(s,3H),3.21(s,3H),3.55(s,3H),3.78(s,3H),5.19(s,2H),6.84(s,1H),7.10(dd,J=7.5,7.5Hz,1H),7.17(d,J=7.5Hz,1H),7.23(d,J=8.4Hz,1H),7.26(dd,J=7.5,7.5Hz,1H),7.33(d,J=7.5Hz,1H),7.37(dd,J=2.1,8.4Hz,1H),7.33(d,J=8.4Hz,2H),7.40(d,J=2.1Hz,1H),7.67(d,J=8.4Hz,2H) 18(d,J=8.4Hz,2H),7.40(d,J=2.1Hz,1H),7.67(d,J=8.4Hz,2H) 18(KB ₇)3405,1724,1519,1480,1366,1236,1177,1153,1080,970,875,798cm ⁻¹
	INMR(CDCB) 3 1.53(s,9H),2.69(s,3H),3.15(s,3H),3.21(s,3H),3.55(s,3H),3.78(s,3H),5.19(s,2H),6.84(s,1H),7.10(dd,J=7.5,7. Hz,1H),7.17(d,J=7.5Hz,1H),7.23(d,J=8.4Hz,1H),7.26(dd,J=7.5,7.5Hz,1H),7.33(d,J=7.5Hz,1H),7.37(dd,J=2.1,8.4Hz,1H),7. 8(d,J=8.4Hz,2H),7.40(d,J=2.1Hz,1H),7.67(d,J=8.4Hz,2H) R(KBr)3405,1724,1519,1480,1366,1236,1177,1153,1080,970,875,798cm ⁻¹
88.	8(d,J=8.411z,2H),7.40(d,J=2.111z,1H),7.67(d,J=8.4Hz,2H) R(KBr)3405,1724,1519,1480,1366,1236,1177,1153,1080,970,875,798cm ⁻¹
=	1(KBr)3405,1724,1519,1480,1366,1236,1177,1153,1080,970,875,798cm ¹
Ë	m.p.178-182℃
	111NMR(CDCla) 5 2.70(s,3H),3.15(s,3H),3.21(s,3H),3.55(s,3H),3.78(s,3H),5.14(s,2H),6.76(m,2H),6.84(s,1H),7.19(m,2H),7.26
(d,	(d,J=8.7112,111),7.37(d,J=2.7112,111),7.36(dd,J=2.7,8.7112,111),7.38(d,J=8.7Hz,2H),7.68(d,J=8.7Hz,2H)
HI III	IR(KBr)3448,1627,1608,1519,1497,1364,1177,1151,1079,971,876,798cm ⁻¹
Ë	m.p.187·189℃
	HNMR(CDCl ₃) δ 2.38(s,3H),3.39(s,3H),3.45(s,3H),5.11·5.14(m,3H),5.89(s,1H),6.33(s,1H),6.88·6.94(m,2H),7.20·7.36(m,6H
1.043),7.43(d,J=2.1Hz,1H),7.76(d,J=0.6Hz,1H)
IR	IR(KBr)3414,2942,1613,1534,1469,1355,1266,1172,1092,1030cm ⁻¹
E	m.p.207-215C(dec.)
	1HNMR(d6-1)MSO) ô 2.37(9,3H),3.67(brs,2H),4.56(brs,2H),4.90(8,2H),6.14-6.20(m,2H),6.86(d,J=8.7Hz,2H),7.11.7.22(m,4H
7'(),7.42(d,J=8.711z,2H),7.52(e,1H),8.94(e,1H),9.47(e,1H)
IR	IR(KBr)3388,3301,2932,1612,1591,1621,1458,1413,1288,1030cm ⁻¹
É	m.p.108-110℃
=	"HINMR(CDCl ₃) δ 1.69(8,3H),1.74(8,3H),249-2.59(m,2H),3.03(8,3H),3.20(8,3H),3.56(8,3H),3.75(8,3H),4.06(t,J=6.6Hz,2H),4.
1.545 93	93(8,2H),5.22(m,1H),6.66(8,1H),7.04(d,J=8.7Hz,1H),7.09.7.17(m,2H),7.37(dd,J=2.1,8.7Hz,1H),7.44(d,J=2.1Hz,1H),7.51.7.5
8(n	8(m,2H)
IR	IR(KBr)3434,2933,1604,1521,1473,1383,1360,1278,1160,1121,1084,1017cm ⁻¹

Table 109

100 100
m.p.103-110.C HINMR(CDCL _L) & 1.69(s,3H), 1.75(s,3H),248-2.58(m,2H),4.07(t,J=6.6Hz,2H),5.22(m,1H),5.69(s,1H),5.87(s,1H),6.44(s,1H),6. 93-6.95(m,2H),7.04-7.06(m,1H),7.10-7.18(m,2H),7.58-7.64(m,2H) IR(KBr)3411,2932,1608,1587,1522,1491,1226,1111,1074,1017cm ⁻¹
m.p.133-136°C !HNMR(CDCl ₃) δ 2.98(s,3H),3.12(s,3H),3.56(s,3H),3.75(s,3H),4.94(s,2H),5.18(s,2H),6.67(s,1H),7.09-7.17(m,3H),7.34-7.49(m,7H),7.51-7.58(m,2H) IR(KBr)3434,2941,1598,1519,1481,1383,1365,1279,1231,1164,1099,1081cm ⁻¹
m.p.161-162°C HINMR(CDCl ₃) δ 3.10(s,3H),3.42(s,3H),3.76(s,3H),5.17(s,2H),6.05(s,1H),6.44(s,1H),7.11-7.20(m,3H),7.33-7.50(m,7H),7.52(d,J=2.1Hz,1H),7.57-7.65(m,2H) IR(KBr)3488,2938,1613,1523,1486,1290,1223,1107,1071,1012cm ⁻¹
$\begin{array}{l} m.p.113-115 \circlearrowright\\ HNMR(CDCl_3)\ \delta\ 2.37(s,3H),2.98(s,3H),3.11(s,3H),3.56(s,3H),3.75(s,3H),4.93(s,2H),5.13(s,2H),6.66(s,1H),7.09-7.17(m,3H),\\ 7.18-7.23(m,2H),7.32-7.39(m,3H),7.45(d,J=1.8Hz,1H),7.51-7.58(m,2H)\\ IR(KBr)3434,2934,1738,1601,1520,1478,1466,1376,1356,1159,1109,1070,1014cm^{-1} \end{array}$

Table 110

1-551	m.p.138-140°C 11 INMR(CDCh.) δ 2.38(s,3H),3.04(s,3H),3.57(s,3H),3.74(s,3H),4.90(s,2H),5.11(s,2H),5.63(s,1H),6.66(s,1H),6.91(dd,J=2.1,8.4 4Hz,1H),6.99(d,J=8.4Hz,1H),7.05(d,J=1.8Hz,1H),7.08-7.17(m,2H),7.22(d,J=7.8Hz,2H),7.33(d,J=7.8Hz,2H),7.52·7.59(m,2H))) 12 INGRE 1934 1601 1518 1476 1461 1379 1252,1224,1158,1092,1011cm ⁻¹
1-552	m.p. 188-190°C HINMR(CDCh) & 2.38(s,3H),3.10(s,3H),3.42(s,3H),3.75(s,3H),5.12(s,2H),6.04(s,1H),6.43(s,1H),7.11-7.25(m,5H),7.35(d,J=7 .8Hz,2H),7.42(dd,J=2.4,8.7Hz,1H),7.51(d,J=2.4Hz,1H),7.57-7.65(m,2H) .RK(Rp)3433,2963,1611,1523,1485,1355,1282,1226,1163,1106,1071cm ⁻¹
1-553	m.p.149-150°C יHNMR(CDCl ₃) δ 3.13(в,3H),3.21(в,3H),5.20(в,2H),7.17(d,J=8.4Hz,1H),7.24(m,1H),7.36-7.54(m,9H),7.58(dd,J=1.2,2.4Hz,1 H),7.60-7.67(m,2H) IR(KBr)1524,1485,1354,1292,1263,1181,1150,1114,977,869,858.850,812,796 cm ⁻¹
1-554	m.p.92-93°C IIINMR(CDCh) \$ 1.69(s,3H),1.74(d,J=1.2Hz,3H),2.25(s,3H),2.28(s,3H),2.56(dt,J=6.6,7.2Hz,2H),3.20(s,3H),3.21(s,3H),4.07(t,J=7.2Hz,2H),5.22(m,1H),7.05(d,J=8.4Hz,1H),7.11(s,1H),7.13(s,1H),7.25(dd,J=2.1,8.4Hz,1H),7.31-7.43(m,5H) IR(KBr)1618,1488,1355,1293,1264,1169,1161,1109,970,872,818cm ⁻¹
1.555	m.p.126-127°C !HNMR(CDCl ₃)

Table 111

55

50	45	40	35	e e	30	25	20	15	10	5
1-556	m.p. 154-155 °C HINMR(CDCE) & 2.25(s. 3H), 2.28(s. 3H), 2.38(s. 3H), 3.11(s. 3H), 3.20(s. 3H), 5.13(s, 2H), 7.11(s. 1H), 7.14(s. 1H), 7.19-7.28(m, 4H), 7.31-7.43(m, 7H) IR(KBr) 1520, 1487, 1365, 1284, 1260, 1192, 1172, 1162, 1108, 967, 867, 809, 795cm ⁻¹	2.25(s,3H),2.25	3(s,3H) 50,1192	,2.38(s	,311),3.11(s	,311),3.20(s,311),	5.13(s,2H),7.1	1(8, 111), 7.14(1,1H),7.19.7.28	(m,4H),
1.557	m.p.112-113°C 41NMR(CDCh.,) δ 1.69(s,311),1.76(s,311),2.26(s,311),2.27(s,311),2.54(dt,J=7.2,6.9Hz,2H),4.07(t,J=6.9Hz,2H),4.86(s,1H),5.23(m,111),5.71(s,111),6.82(dd,J=2.1,8.41fz,111),6.85·6.93(m,311),6.96(d,J=2.111z,111),7.10(s,1H),7.12(s,1H),7.22-7.27(m,2H) 1R(KBr)3380.1613,1586,1523,1490,1471,1431,1391,1293,1261,1246,1205,1171,1130,836cm ⁻¹	1.69(s,3H), 1.76 6.82(dd,J=2.1,8 3,1586,1523,149	5(s,3H) .4Hz,1	,2.26(s 11),6.8 1,1431,	5,311),2.27(6 5-6.93(m,31 ,1391,1293	,3H),2.54(dt,J=' (I),6.96(d,J=2.11 1261,1246,1205	7.2,6.9Hz,2H), 1z,1H),7.10(s,1	4.07(t,J=6.9H H),7.12(s,1H 6cm ⁻¹	(a, 2H), 4.8G(s, 1H), 7.22-7.27(m, 2	H),6.23(
1.558	m.p.141-142°C !HNMR(CDCl ₃) & 1.77(s,3H),1.82(s,3H),4.63(d,J=6.9Hz,2H),5.06(s,1H),5.52(m,1H),5.75(s,1H),6.89-6.97(m,3H),7.07(dt,J=8 .4,1.8Hz,1H),7.14-7.23(m,3H),7.44-7.51(m,2H) IR(IKBr)3429,1612,1594,1531,1489,1467,1449,1401,1259,1213,1169,1132,835,781cm ⁻¹	1.77(s,3H),1.8: -7.23(m,3H),7.4 2,1594,1531,148	2(8,3H) 4-7.51(39,1467	,4.63(cm,2H)	d,J=6.9Hz,3 ,1401,1259	2H),5.06(s,1H),5	.52(m,1H),5.7t	5(8,1H),6.89-6	.97(m,3H),7.07	(dt,J=8
1-659	m.p.179-180°C IIINMR(CDC(3,13)	,C (:1,1) 5 2.26(e,311),2.28(s,3H),2.39(s,3H),4.81(s,1H),5.11(s,2H),5.70(s,1H),6.83(dd,J=2.1,8.4Hz,1H),6.86-6.91(m,2 -8.4Hz,1H),6.98(d,J=2.1Hz,1H),7.10(s,1H),7.12(s,1H),7.21-7.28(m,4H),7.32-7.38(m,2H) 7,1609,1520,1489,1426,1378,1247,1206,1175,1124,1006,792cm ⁻¹	8(s,3H) 2.1Hz, 26,1378	,2.39(s 1H),7.1	10(s,1H),7.1 10(s,1H),7.1 1206,1175	,1H),5.11(s,2H), [2(s,1H),7.21-7.2 [1124,1006,792c]	6.70(s,1H),6.8 :8(m,4H),7.32- m ⁻¹	3(dd,J=2.1,8. 7.38(m,2H)	4Hz,1H),6.86-6	.91(m,2
1-560		SO-d ₆) δ 3.74(s,3H),3.75(s,3H),4.62(d,J=5.0Hz,2H),5.02(t,J=5.0Hz,1H),5.19(s,2H),6.94(s,1H),6.99(s,1H),7.06(d),7.22(ddd,J=8.6,2.0,0.8Hz,1H),7.32-7.52(m,8H),7.57(d,J=2.4Hz,1H),9.91(brs,1H),7.32-7.52(m,8H),7.32-7.52(m,9Hz,1H),9.91(brs,1H),9.91(1464,1453,1382,1207,1035,764,737cm ⁻¹	3.75(s, 0.8Hz, 53,1385	3H),4.(1H),7. 2,1207	62(d,J=5.0l 32-7.52(m, ^t ,1035,764,7	1z,2H),5.02(t,J= 3H),7.57(d,J=2.4	6.0Hz,1H),6.19 Hz,1H),9.91(b	9(6,2H),6.94(crs,1H)	,1H),6.99(e,1H),7.06(d

Table 112

. 45

1-561 m.p. 147-148°C -561 80(dd,J=8.7,2.7 -562 11,7.66(dd,J=1 -562 11,7.66(dd,J=1 -563 11,7.66(dd,J=1 -563 11,7.66(dd,J=1 -563 11,7.66(dd,J=1 -563 11,7.66(dd,J=1 -564 11,7.24(d	m.p.147-148°C HINMR(CDCh) & 3.27(s,3H),3.79(s,3H),3.82(s,3H),5.26(s,2H),6.92(s,1H),6.95(s,1H),7.13(d,J=8.7Hz,1H),7.35-7.50(m,8H),7. 80(dd,J=8.7,2.7Hz,1H),8.05(d,J=2.7Hz,1H),10.62(s,1H) 1R(KBr) 1682,1606,1489,1377,1345,1261,1209,1168,1119,1038,871,832cm ⁻¹ m.p.189-191°C HINMR(DMSO-d ₆) & 3.53(s,3H),3.80(s,3H),3.80(s,3H),5.27(s,2H),7.05(s,1H),7.10(s,1H),7.25(d,J=8.7Hz,1H),7.30-7.59(m,7H),7.66(dd,J=11.7,2.1Hz,1H),7.67(dd,J=8.7,2.3Hz,1H),7.84(d,J=2.3Hz,1H),12.7(brs,1H) 1R(KBr)3433,1705,1492,1371,1250,1207,1168,1033,868cm ⁻¹
	0.Ch ₃) δ 3.27(s,3H),3.79(s,3H),3.82(s,3H),5.26(s,2H),6.92(s,1H),6.95(s,1H),7.13(d,J=8.7Hz,1H),7.35-7.50(m,8H),7. 7,2.7Hz,1H),8.05(d,J=2.7Hz,1H),10.62(s,1H) 82,1606,1489,1377,1345,1261,1209,1168,1119,1038,871,832cm ⁻¹ 11 C MSO d ₀) δ 3.53(s,3H),3.80(s,3H),3.80(s,3H),5.27(s,2H),7.05(s,1H),7.10(s,1H),7.25(d,J=8.7Hz,1H),7.30-7.59(m,7,J=11.7,2.1Hz,1H),7.67(dd,J=8.7,2.3Hz,1H),7.84(d,J=2.3Hz,1H),12.7(brs,1H) 33,1705,1492,1371,1250,1207,1168,1033,868cm ⁻¹
80(dd,J=8 IR(KBr)1(m.p. 189-1 11NMR(1) II),7.66(dd IR(KBr)34 m.p. 204-2 14NMR(C OHz, 1H),6 IR(KBr)34 m.p. 179-1 11NMR(1)	7,2.7Hz,1H),8.05(d,J=2.7Hz,1H),10.62(s,1H) 82,1606,1489,1377,1345,1261,1209,1168,1119,1038,871,832cm ¹ 11 C MSO.d ₀) & 3.53(s,3H),3.80(s,3H),3.80(s,3H),5.27(s,2H),7.05(s,1H),7.10(s,1H),7.25(d,J=8.7Hz,1H),7.30-7.59(m,7,J=11.7,2.1Hz,1H),7.67(dd,J=8.7,2.3Hz,1H),7.84(d,J=2.3Hz,1H),12.7(brs,1H) 33,1705,1492,1371,1250,1207,1168,1033,868cm ¹
IR(KBr)16 II), 7.66(de) III), 7.66(de) IR(KBr)34 III, IH), 6 IR(KBr)34 III, IH), 6 IR(KBr)34 III, IH), 7 III, IH), 6 III, IH), 7 III, IH), 7	R2, 1606, 1489, 1377, 1345, 1261, 1209, 1168, 1119, 1038, 871, 832cm ⁻¹ 11 ℃ MS(O-dc) δ 3.53(s, 3H), 3.80(s, 3H), 3.80(s, 3H), 5.27(s, 2H), 7.05(s, 1H), 7.10(s, 1H), 7.25(d, J=8.7Hz, 1H), 7.30-7.59(m, 7, J=11.7, 2.1Hz, 1H), 7.67(dd, J=8.7, 2.3Hz, 1H), 7.84(d, J=2.3Hz, 1H), 12.7(brs, 1H) 33, 1705, 1492, 1371, 1250, 1207, 1168, 1033, 868cm ⁻¹
m.p.189-1 11NMR(L) 11),7.66(ded 1R(KBr)34 m.p.204-2 14NMR(C 0Hz,1H),6 IR(KBr)34 m.p.179-1 11NMR(L)	n1°C MSO-da) & 3.53(s,311),3.80(s,311),3.80(s,311),5.27(s,211),7.05(s,111),7.10(s,111),7.25(d,J=8.7Hz,111),7.30-7.59(m,7 J=11.7,2.111z,111),7.67(dd,J=8.7,2.31fz,111),7.84(d,J=2.31fz,111),12.7(brs,111) 33,1705,1492,1371,1250,1207,1168,1033,868cm ⁻¹
11), 7.66(de) 11), 7.66(de) 11(KBr)34 11(KBr)34 11(KBr)34 11(KBr)34 11(KBr)34 11(KBr)37	MSO-d ₆) δ 3.53(8,3H),3.80(8,3H),3.80(8,3H),5.27(8,2H),7.05(8,1H),7.10(8,1H),7.25(d,J=8.7Hz,1H),7.30-7.59(m,7.31-11.7,2.1Hz,1H),7.67(dd,J=8.7,2.3Hz,1H),7.84(d,J=2.3Hz,1H),12.7(brs,1H) 33,1705,1492,1371,1250,1207,1168,1033,868cm ⁻¹
11), 7.66(de IR(KBr)34 m.p.204-22 !HNMR(C 0Hz, 1H), 6 IR(KBr)34 m.p.179-1; !IINMR(I)	.J=11.7,2.11tz,11t),7.67(dd,J=8.7,2.31tz,1tt),7.84(d,J=2.31tz,1tt),12.7(brs,1tt) 33,1705,1492,1371,1250,1207,1168,1033,868cm ¹
IR(KBr)34 III. D. 204-2 IHNMR(C OHZ, 1H),6 IR(KBr)34 III. D. 179-1 III.NMR(I) 2Hz, 1H),7	33,1705,1492,1371,1250,1207,1168,1033,868cm ¹
m.p.204-2 'HNMR(C 0Hz,1H),6 IR(KBr)34 m.p.179-1 'IINMR(I) 2Hz,1H),7	
"HNMR(C OHZ, 1H), G IR(KBr)34 m.p. 179-1 "IINMR(I) 2HZ, 1H), 7	n'C
0Hz,1H),6 IR(KBr)34 m.p.179-1 'IINMR(I) 2Hz,1H),7	111111111111111111111111111111111111
IR(KBr)34 m.p. 179-1; iIINMR(1) 2Hz, 1H),7	0 Hz,1H), 6.96 (d, J = 2.0 Hz,1H), 6.98 (d, J = 8.4 Hz,1H), $7.34\cdot7.45$ (m, 7 H), 7.68 (d, J = 8.7 Hz,2H)
110MR(I) 2Hz, 1H),7	IR(KBr)3408,3337,1692,1498,1474,1466,1347,1251,1150,870,855cm ⁻¹
111NMR(I) 2Hz, 1H),7	J.C.
	MSO-d ₀) δ 3.76(8,3H),3.76(8,3H),5.26(8,2H),6.99(8,1H),7.00(t,J=8.7Hz,1H),7.01(8,1H),7.22(ddd,J=8.7,2.4Hz,J=1.
	2Hz, 1H), 7.24(d,J=8.9Hz, 1H), 7.32-7.54(m,6H), 7.65(dd,J=8.9,2.4Hz,1H), 7.82(d,J=2.4Hz,1H), 9.91(e,1H), 12.6(brs,1H)
1R(KBr)342	IR(KBr)3422,3277,1726,1626,1491,1416,1396,1284,1210,1031cm ⁻¹
m.p.178-180°C	lo ² C
HNMR(D	$MSO-do) \ \delta \ 3.30(s, 3H), 3.43(s, 3H), 3.61(s, 3H), 4.31(s, 2H), 5.14(s, 2H), 6.25(s, 1H), 6.61(dd, J = 8.4, 1.9Hz, 1H), 7.05(d, J = 8.4, 1.9Hz, 1H), 7.05(dd, J = 8.$
1-000 (HIz,1H),7.3	.4Hz,1H),7.33-7.44(m,6H),7.50-7.54(m,2H),7.70(d,J=8.7Hz,2H),9.08(s,1H)
1R(KBr)343	35,3378,1593,1518,1481,1360,1245,1147,1119,1010,871cm ⁻¹

Table 113

1-566	foam HINMR(DMSO-d ₆)
1.567	m.p.146-148°C HINMR(DMSO-da) & 1.64(8,3H),1.70(8,3H),2.44(q,J=6.9Hz,2H),3.53(4,3H),3.78(8,3H),3.80(8,3H),4.05(t,J=6.9Hz,2H),5.26(t,J=6.9Hz,2H),7.05(s,HI),7.10(s,HI),7.19(d,J=8.4Hz,1H),7.50(dd,J=8.4,2.0Hz,1H),7.57(t,J=8.3Hz,1H),7.65(ddd,J=8.3,1.9,0.9Hz,1H),7.66(dd,J=11.9,1.9Hz,1H),7.79(d,J=2.0Hz,1H),12.5(brs,1H) HZ,1H),7.66(dd,J=11.9,1.9Hz,1H),7.79(d,J=2.0Hz,1H),12.5(brs,1H) HR(RBr)3434,3299,1727,1489,1375,1341,1209,1172,1033,851,824cm ⁻¹
1-568	m.p.179-181°C HNMR(CDCl ₃) δ 1.31(s,9H),3.11(s,3H),3.20(s,3H),3.39(s,3H),3.74(s,3H),5.16(s,2H),5.98(s,1H),6.79(s,1H),7.09(d,J=8.5Hz, 1H),7.29(dd,J=8.5,1.9Hz,1H),7.35-7.49(m,8H),7.66(d,J=8.7Hz,2H) IR(KBr)3404,3341,1690,1517,1465,1369,1348,1174,1151,869,814cm ¹
I-569	m.p.189·191°C ¹ HNMR(DMSO-d ₆) δ 3.31(8,3H),3.33(8,3H),3.43(8,3H),3.64(8,3H),4.48(8,2H),5.25(8,2H),6.28(8,1H),7.24(dd,J=9.0,2.0Hz,1H) ¹ 7.24(d,J=2.0Hz,1H),7.34-7.46(m,6H),7.52-7.55(m,2H),7.70(d,J=9.0Hz,2H) ¹ 1.84(d,J=2.0Hz,1H),7.34-7.46(m,6H),7.52-7.55(m,2H),7.70(d,J=9.0Hz,2H)
I-570	m.p.194·196°C !HNMR(CDCl ₃) δ 3.07(s,3H),3.22(s,3H),3.36(s,3H),3.77(s,3H),5.16(s,2H),6.92(s,1H),7.13(d,J=8.6Hz,1H),7.25(dd,J=8.6,2.1 Hz,1H),7.29(d,J=2.1Hz,1H),7.36·7.47(m,7H),7.63(brs,1H),7.67(d,J=8.4Hz,2H) IR(KBr)3433,3329,1737,1518,1476,1369,1168,1148,878cm ⁻¹

Table 114

	m.p.184-186°C
1.571	'HINMR(CHCL ₃) & 2.31(8,3H),2.38(8,3H),3.12(8,3H),3.45(8,3H),3.58(8,3H),3.76(8,3H),5.14(8,2H),6.95(8,1H),7.11·7.23(m,5H),7.34·7.37(m,4H),7.57(dd,J=8.7,2.4Hz,1H),7.66(d,J=2.4Hz,1H)
	IR(CHCh,)2952,1732,1614,1599,1518,1467,1445,1370,1290,1256,1169,1117,1081,1064,1003,973,905,827cm ⁻¹
1.572	111),7.14(d,J=8.711z,111),7.21-7.23(m,411),7.35-7.37(m,211),7.56(dd,J=8.7,2.41z,1H),7.66(d,J=2.4Hz,1H) 1R(CHCh)33596,2939,1720,1613,1522,1466,1445,1370,1346,1291,1258,1183,1172,1116,1081,1064,1003,973,904,866,837cm
	m.p.197-199°C 'HNMR(CD ₃ OD) δ 3.19(s,3H),3.43(s,3H),3.76(s,3H),5.25(s,2H),7.06-7.12(m,3H),7.32-7.43(m,6H),7.52-7.54(
1 673	m,2H),7.60(dd,J=8.4,2.4Hz,1H),7.66(d,J=2.4Hz,1H)
200-1	IR(KBr)3421,2941,1738,1708,1643,1519,1472,1354,1297,1259,1228,1171,1119,1081,1063,1001,958,920,871,826,755,697,5
	24cm ⁻¹
	m.p.151-153°C HINMR(CDCl3) & 2.39(8,311),3.44(8,311),3.64(8,311),3.74(8,3H),5.12(8,2H),5.78(br,2H),6.78-6.81(m,2H),6.94(8
1,574	,1H),6.99(d,J=8.4Hz,1H),7.15-7.25(m,6H),7.33-7.36(m,2H)
	$IR(CHCI_3)3595,3541,2952,1730,1612,1691,1521,1474,1395,1345,1323,1290,1258,1173,1129,1081,1063,1004,901,863,836c$
	m · l
	m.р.195-196°С
	1 HNMR(CD $_{3}$ OD) δ 2.34(8,3H),3.40(8,3H),3.72(8,3H),5.16(8,2H),6.76-6.78(m,2H),6.96(8,1H),7.02(8,1H),7.14-7.21(m,6H),7.3
1.575	1.575 6.7.39(m,2H)
	$1R(\mathrm{KBr})3530,3398,2942,1708,1610,1593,1520,1465,1373,1334,1256,1233,1127,1078,1056,996,960,864,834,791,755,690,65$
	1,605,534cm ⁻¹

Table 115

50	45	40	<i>35</i> -		30	25	20	15	10	5
1.576	m.p.82-84°C ¹ HNMR(CDCl ₃) .07-7.12(m,4H), IR(CHCl ₃)293G,	m.p.82-84 °C. PHNMR(CDCh) & 1.70(s,3H), 1.75(s,3H), 2.59(m,2H), 3.24(s,3H), 3.50(s,3H), 3.77(s,3H), 4.10(t,J=6.9Hz,2H), 5.23(m,1H), 7.07-7.12(m,4H), 7.23-7.28(m,2H), 7.57(dd,J=8.7,2.4Hz,1H), 7.63(d,J=2.4Hz,1H), 9.99(s,1H) PROPERTY (CHCh), 293-7.28(m,2H), 7.57(dd,J=8.7,2.4Hz,1H), 7.63(d,J=2.4Hz,1H), 9.99(s,1H)	5(s,3H),2.6 7.57(dd,J=	4-2.59(n 8.7,2.4H 1445,13°	n,2H),3.24(s z,1H),7.63(d 71,1331,129	,3H),3.50(8,3I I,J=2.4Hz,1H) 4,1232,1172,1	1),3.77(s,3H),4 ,9.99(s,1H) 169,1123,109	.10(t,J=6.9H ₂	z,2H),5.23(m	1H),7
1.577	m.p.126-128°C HINMR(CD3OD) & 1.70(8,31 29(m,1H),7.04-7.11(m,3H),7. IR(KBr)3432,2940,2566,173 98,871,828,796,695,524cm ⁻¹	m.p.126-128°C HINMR(CDaOD) & 1.70(8,3H), 1.74(d,J=0.9Hz,3H),2.53-2.61(m,2H),3.25(8,3H),3.44(8,3H),3.75(8,3H),4.13(t,J=6.3Hz,2H),5. 29(m,1H),7.04-7.11(m,3H),7.24(d,J=8.7Hz,1H),7.33-7.38(m,2H),7.58-7.65(m,2H) R(KBr)3432,2940,2566,1735,1711,1646,1613,1519,1470,1447,1366,1297,1264,1228,1172,1118,1081,1063,1001,962,920,8 98,871,828,796,695,524cm ⁻¹	74(d,J=0.9 ,J=8.7Hz,1	Hz,3H), H),7.33	2.53-2.61(m -7.38(m,211) ,1470,1447,	,2H),3.25(8,3I ,7.58-7.65(m,5 1366,1297,12	1),3.44(8,3H),; 2H) 64,1228,1172,	1.75(6,3H),4.1:	3(t,J=6.3Hz, 63,1001,962	2H),5. 920,8
1.578	m.p.202-204°C ¹ HNMR(CDCl ₃) 30-7.49(m,7H),7 IR(CHCl ₃)2952,	m.p.202-204°C ¹ HNMR(CDCl ₃) δ 3.13(s,3H),3.45(s,3H),3.61(s,3H),3.76(s,3H),5.19(s,2H),6.95(s,1H),7.05-7.11(m,2H),7.14(d,J=8.7Hz,1H),7. 30-7.49(m,7H),7.57(dd,J=8.7,2.4Hz,1H),7.67(d,J=2.4Hz,1H) ¹ IR(CHCl ₃)2952,1731,1603,1519,1472,1445,1371,1345,1291,1172,1169,1117,1081,1064,1004,972,960,904cm ⁻¹	5(s,3H),3.6 4z,1H),7.6'	1(s,3H),; 7(d,J=2.	3.76(8,3H),5 1Hz,1H) 15,1291,117	.19(s,2H),6.95	(8,1H),7.05-7. 081,1064,100	11(m,2H),7.14	4(d,J=8.7Hz, cm ⁻¹	IH),7.
1.579	m.p.197-199°C !HNMR(CDCl ₃) 24(d,J=2.1Hz,1] IR(CHCl ₃)3543,3	m.p.197-199°C ¹HNMR(CDCl₃) δ 2.71(a,3H),3.56,(a,3H),3.75(a,3H),5.18(a,2H),5.72,(a,1H),6.86(a,1H),7.00(d,J=8.4Hz1H),7.12-7.18(m,3H),7.24(d,J=2.1Hz,1H),7.38-7.46(m,7H) IR(CHCl₃)3543,2939,1602,1521,1482,1465,1394,1370,1328,1254,1178,1159,1130,1081,1005,964,840,816cm ⁻¹	3,(s,3H),3.7 H) 482,1465,	5(s,3H),	5.18(8,2H),6	1.72,(8,1H),6.8 1,1178,1159,1	6(s, 1H),7.00(d	,J=8.4Hz1H),	.7.12-7.18(m,	3H),7
I -580	m.p.199-201 C ¹ HNMR(CD ₃ OD) H) IR(KBr)3527,34 7,698,633,599,53	m.p.199-201°C !HNMR(CD ₃ OD) & 3.40(e,3H),3.73(e,6H),5.22(e,2H),7.00(e,1H),7.03-7.11(m,4H),7.17(m,1H),7.31-7.41(m,5H),7.49-7.52(m,2 H) !R(KBr)3527,3434,2940,1701,1591,1518,1465,1380,1335,1320,1291,1270,1222,1161,1130,1078,1056,1002,916,868,837,74 7,698,633,599,526,480cm ⁻¹	73(s,6H),5.	22(s,2H)	,7.00(s, 1H), 1335,1320,	7.03-7.11(m,4	H),7.17(m,1H	,7.31-7.41(m,	5H),7.49.7.5 02,916,868,8	2(m,2

Table 116

$HINMR(CDCB) \delta - 1.78(8,3H), 1.82(8,3H), 3.25(8,3H), 3.50(8,3H), 3.76(8,3H), 4.66(d,J=6.9Hz,2H), 5.52(m,1H), 7.09-7.14(m,4H), 7.09-7.14(m,4H), 2.10(m,4H), 2.10(m$
7.23-7.27(m,2H),7.56(dd,J=8.7,2.1Hz,1H),7.63(d,J=2.1Hz,1H),9.99(s,1H)
IR(CHCl ₃)2938,1679,1604,1591,1517,1469,1445,1371,1331,1292,1172,1159,1122,1092,1004,973cm ⁻¹
Li) & 2.69(s,3H),3.13(s,3H),3.57(s,3H),3.76(s,3H),5.19(s,2H),6.85(s,1H),7.13·7.18(m,3H),7.37·7.49(m,7H),7.56(
dd,J=9.0,2.111z,111),7.62(d,J=2.111z,111)
IR(CHCl ₃)2939,1603,1521,1482,1464,1294,1253,1177,1119,1082,1003,963,876,842cm ⁻¹
14NMR(CDCl3) 6 2.68(8,3H),3.54(8,3H),3.56(8,3H),3.75(8,3H),5.21(8,2H),5.27(8,2H),6.85(8,1H),7.00(d,J=8.7Hz,1H),7.13-7.
IR(CHCh)2938,1731,1603,1520,1482,1370,1249,1178,1158,1134,1081,1004,961,840,815cm ⁻¹
$13) \ \delta \ 3.47 (8,3H), 3.74 (8,3H), 5.18 (8,2H), 5.72 (8,1H), 6.00 (8,1H), 6.46 (8,1H), 7.01 (d,J=8.4Hz,1H), 7.10 \cdot 7.19 (m,3H), 7.10 \cdot 1.10 \cdot 1.10$
27(d,J=2.1Hz,1H),7.36-7.48(m,7H)
10,2938,1603,1568,1522,1490,1464,1416,1396,1325,1263,1158,1111,1072,1002,838cm ⁻¹
$HNMR(CD_3OD) \ \delta 1.80 (d,J = 0.9 Hz,3 H), 1.82 (d,J = 0.9 Hz,3 H), 3.26 (s,3 H), 3.44 (s,3 H), 3.76 (s,3 H), 4.71 (d,J = 6.9 Hz,2 H), 5.55 (m,1), 3.75 (s,3 H), 3.76 (s,3 $
H),7.06-7.12(m,3H),7.26(d,J=8.7Hz,1H),7.34-7.36(m,2H),7.58-7.63(m,2H)
IR(KBr)3422,2939,1736,1702,1603,1519,1472,1368,1293,1228,1187,1173,1117,1081,1061,1003,975,961,920,827,759,701,5

Table 117

1.586	m.p.152-153°C HINMR(CDCla) \$\delta\$ 1.69(8,3H), 1.74(d,J=0.9Hz,3H), 2.55-2.57(m,2H), 3.23(8,3H), 3.44(8,3H), 3.60(8,3H), 3.77(8,3H), 4.09(t,J=6.6] Hz,2H), 5.22(m, 1H), 6.95(8,1H), 7.05-7.11(m,3H), 7.30-7.35(m,2H), 7.57(dd,J=8.7,2:4Hz,1H), 7.64(d,J=2.4Hz,1H) HR(CHCla)2938, 1731, 1601, 1519, 1469, 1445, 1370, 1345, 1291, 1172, 1169, 1117, 1081, 1064, 1004, 973, 904, 864, 840cm
1.587	m.p.132-133°C HINMR(CDCh.) & 3.44(s,3H),3.61(s,3H),3.75(s,3H),5.18(s,2H),5.71(s,1H),6.95(s,1H),6.99-7.10(m,3H),7.17(dd,J=8.4,2.1Hz,1 H),7.25-7.47(m,8H) IR(CHCh.)3542,2952,2938,1731,1597,1519,1474,1392,1345,1321,1290,1266,1169,1130,1080,1063,1000,900,862.839cm ⁻¹
1-588	m.p.92-94°C ¹ HNMR(CDCl ₃) δ 1.69(d,J=0.6Hz,3H),1.76(d,J=1.2Hz,3H),2.51-2.58(m,2H),3.45(e,3H),3.75(e,3H),4.09(t,J=6.9Hz,2H),5.23(¹ m,1H),5.70(br,1H),6.92(d,J=8.4Hz,1H),6.97(s,1H),7.05-7.10(m,2H),7.16(dd,J=8.4,2.1Hz,1H),7.23(d,J=2.1Hz,1H),7.33-7.38(¹ m,2H) ¹ IR(KBr)3534,3432,2936,1713,1597,1519,1473,1377,1322,1260,1231,1158,1130,1081,1063,1004,961,919,837,808,791,754,7
1-689	m.p. 120-122°C ¹ HNMR(CDCl ₃) δ 1.69(s,3H), 1.76(s,3H), 2.51-2.58(m,2H), 3.44(s,3H), 3.61(s,3H), 3.75(s,3H), 4.09(t,J=6.6Hz,2H), 5.23(m,1H), 5.73(s,1H), 6.92(d,J=8.4Hz,1H), 7.96(s,1H), 7.04-7.10(m,2H), 7.16(dd,J=8.1,1.8Hz,1H), 7.23(d,J=1.8Hz,1H), 7.31-7.36(m,2H) ¹ IR(CHCl ₃)3541;2937,1731, 1598, 1519, 1471, 1391, 1345, 1323, 1290, 1265, 1159, 1130, 1080, 1063, 1005, 839cm - 1
1.590	m.p.154-156°C 'HNMR(CDCl ₃) δ 1.77(s,3H),1.82(s,3H),3.24(s,3H),3.45(s,3H),3.61(s,3H),3.76(s,3H),4.64(d,J=7.2Hz,2H),5.51(m,1H),6.95(s, 1H),7.05-7.11(m,3H),7.31-7.35(m,2H),7.57(dd,J=8.7,2.4Hz,1H),7.64(d,J=2.4Hz,1H) IR(CHCl ₃)2938,1731,1602,1519,1472,1445,1370,1345,1290,1186,1116,1080,1064,1003,973,904,840cm ⁻¹

Table 118

	m.p.181-182°C
	HINMR(CD3OD) & 1.77(8,311), 1.80(d,J=0.911z,311), 3.42(8,311), 3.74(8,311), 4.65(d,J=6.9Hz,211), 5.55(m,111), 6.99-7.11(m,511), 7.11(m,511), 7.11(m,
1.591	.15(d,J=2.111z,1H),7.32-7.36(m,2H)
	IR(KIB-13529,3424,2937,1714,1598,1519,1473,1417,1372,1336,1321,1258,1235,1157,1129,1080,1062,1004,989,917,854,83
	9,807,791,752,703cm ¹
	m.p.109-110°C
	- - - - - - - -
760-1	J=8.1Hz,111),6.96(s,111),7.04-7.10(m,211),7.16(dd,J=8.4,2.1Hz,1H),7.23(d,J=2.1Hz,1H),7.31-7.36(m,2H)
	IR(CHCl ₃)3538,2938,1731,1598,1519,1473,1391,1345,1290,1264,1159,1129,1080,1063,1004,900,862,839cm ¹
	m.p.185-187°C
3	$^{1}\text{HNMR}(\text{CDCl}_{3}) \ \delta \ 3.78 (\text{s}, 3\text{H}), 3.80 (\text{s}, 3\text{H}), 4.82 (\text{s}, 1\text{H}), 6.61 (\text{m}, 1\text{H}), 6.88 \cdot 6.93 (\text{m}, 2\text{H}), 6.96 (\text{s}, 1\text{H}), 7.04 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.46 (\text{s}, 1\text{H}), 7.23 \cdot 7.25 (\text{m}, 1\text{H}), 7.23 \cdot 7.25 ($
1-093	(d,J=0.9Hz,1H),7.48·7.53(m,2H),7.83(d,J=0.9Hz,1H),8.18(brs,1H)
	IR(KBr)3600-3200(br), 1611, 1523, 1496, 1464, 1447, 1388, 1268, 1239, 1202, 1046, 1025cm ⁻¹
	m.p.188-189°C
3	1HNMR(CDCl ₃) δ 3.19(s,3H),3.79(s,3H),3.81(s,3H),6.61-6.62(m,1H),6.96(s,1H),7.06(s,1H),7.24-7.26(m,1H),7.33-7.37(m,2H
F60-1),7.45(brs,2H),7.64-7.68(m,2H),7.84(d,J=0.9Hz,1H),8.21(brs,1H)
	IR(KBr)3600-3200(br), 1518, 1494, 1465, 1419, 1389, 1361, 1331, 1314, 1213, 1177, 1145, 1051, 1027cm ⁻¹
	m.p.98-101°C
	111 NMR(CDCh3) & 1.77(8,311), 1.78(8,311), 1.82(8,311), 1.86(8,311), 3.78(8,311), 3.79(8,311), 4.56(d,J=6.9Hz,2H), 4.72(d,J=6.9Hz,2
I-595	H), 5.39-5.44 (m, 1H), 5.52-5.57 (m, 1H), 6.53 (d, J=3.0Hz, 1H), 6.97-7.03 (m, 4H), 7.12 (d, J=3.3Hz, 1H), 7.38 (d, J=8.4Hz, 1H), 7.45 (dd, J=3.3Hz, 1H), 7.38 (d, J=8.4Hz, 1H), 7.45 (dd, J=3.3Hz, 1H), 7.45 (dd, J=3.3Hz, 1H), 7.38 (d, J=8.4Hz, 1H), 7.45 (dd, J=3.3Hz, 1H), 7.45 (dd, J=3.3Hz, 1H), 7.45 (dd, J=3.3Hz, 1H), 7.38 (dd, J=8.4Hz, 1H), 7.45 (dd, J=8.4Hz, 2
	J=1.8,8.7Hz,1H),7.52.7.57(m,2H),7.8I(d,J=1.5Hz,1H)
	IR(KBr)3600-2800(br), 1606, 1498, 1476, 1463, 1382, 1262, 1241, 1206, 1177, 1052, 1030cm ⁻¹

Table 119

, **5**

1.596	m.p.207-210°C 11INMR(CDC33) & 3.19(s,3H),3.80(s,3H),3.81(s,3H),5.50(s,2H),6.65(d,J=3.0Hz,1H),6.81(d,J=7.8Hz,1H),6.96(s,1H),7.05(s,1H),7.19-7.22(m,1H),7.25-7.45(m,6H),7.54-7.60(m,1H),7.64-7.69(m,2H),7.86(brs,1H),8.61-8.64(m,1H) 11R(KBr)3600-3200(br),1496,1478,1364,1347,1210,1176,1165,1052,1028cm ⁻¹
1-597	m.p.222-224°C 'IINMR(CDC'h) ô 2.36(s,3H),2.53(s,3H),3.77(s,3H),3.78(s,3H),6.69(dd,J=0.9,4.2Hz,1H),6.95(s,1H),6.96(s,1H),7.23-7.28(m,2 H),7.31-7.35(m,2H),7.51-7.54(m,3H),7.59(d,J=3.3Hz,1H),7.73(d,J=1.2Hz,1H),7.80-7.84(m,2H),8.03(d,J=1.2Hz,1H) IR(KBr)3600-3200(br),1509,1487,1464,144,1366,1208,1172,1129,1092,1049,1028cm ⁻¹
1-598	In.p.126-127°C IHNMR(CDCl ₃) & 1.69(s,3H),1.71(d,J=0.9Hz,3H),2.56(dt,J=6.6,6.9Hz,2H),3.20(s,3H),3.22(s,3H),4.08(t,J=6.9Hz,2H),5.21(m,1H),7.08(d,J=8.4Hz,1H),7.56(d,J=1.8,8.4Hz,1H),7.56(d,J=1.8Hz,1H),7.59·7.66(m,2H) IR(KBr)1528,1488,1469,1395,1362,1342,1297,1265,1201,1176,1152,1116,968,890,872,818cm ⁻¹
1-599	m.p.169-170°C 'HNMR(DMSO-d ₆) δ 2.32(s,3H),3.37(s,3H),3.45(s,3H),5.23(s,2H),7.23(d,J=7.8Hz,2H),7.37-7.44(m,3H),7.47-7.53(m,2H),7.5 6-7.66(m,4H),7.75(d,J=7.5Hz,2H) IR(KBr)1525,1485,1366,1355,1291,1262,1181,1150,1116,969,869,811cm ⁻¹
009-	m.p.123-124°C HNMR(CDCl ₃) δ 1.68(s,3H), 1.75(d,J=0.9Hz,3H), 2.53(dt,J=7.2,6.9Hz,2H), 4.07(t,J=6.9Hz,2H), 4.91(s,1H), 5.22(m,1H), 5.72(s,1H), 6.89-6.95(m,2H), 7.07(m,1H), 7.14-7.22(m,4H), 7.44-7.51(m,2H) IR(KBr)3448, 1612, 1693, 1530, 1489, 1475, 1401, 1262, 1212, 1181, 1169, 1132, 839, 779cm ⁻¹

Table 120

	m.p.184-185°C HINMR(DMSO-da) & 2.31(8,3H),5.13(8,2H),6.85-6.91(m,2H),6.97(m,1H),7.07(d,J=8.4Hz,1H),7.07(d,J=1.8Hz,1H),7.20(d,J=
	8.1Hz,2H),7.32-7.48(m,6H) IR(KBr)3290,1614,1529,1491,1459,1449,1405,1380,1267,1254,1167,1132,783cm ⁻¹
	m.p.141-142°C HINMR(CDCl3) \$\delta 1.77(s, 3H), 1.82(s, 3H), 3.46(s, 3H), 3.78(s, 3H), 4.56(d, J=6.8Hz, 2H), 5.54(t, J=6.6Hz, 1H), 6.96-7.26(m, 7H), 7.6
7.09·I	1(dd,J=5.2,8.GHz,2H),9.88(e,JH) IR(KBr)3433,2955,2922,2865,2833,1687,1604,1515,1462,1288,1258,1232,1180,1160,1070,998,845cm ⁻¹
1.603	m.p.169-170°C HNMR(CDCl:)
	IR(KBr)3433,2936,2840,1698,1517,1462,1251,1233,1067,999,837cm ⁻¹
	m.p.120-121°C m.p.120-121°C m.p.120-121°C
1.604	4.7.26(m,711),7.61(dd,J=5.4,8.8Hz,2H),9.88(brs,1H)
	IR(KIRr)3435,2960,2937,2876,1698,1606,1916,1404,1441,1975,1205,1117,1975,1117,1975,1117,1975,1117,1975,1117,197
ı	m.p.151·152°C HNMR(DMSO-d ₆) & 1.34(s,6H),3.07-3.15(m,1H),3.32(s,3H),3.67(s,3H),3.97-4.08(m,1H),4.28-4.34(m,1H),6.48(s,1H),7.00(d,
I-605	J=7.8Hz,2H),7.22-7.35(m,4H),7.66(dd,J=3.2,6.0Hz,2H),8.72(brs,1H)
	IR(KBr)3460,2960,2935,1607,1521,1488,1455,1244,1220,1150,1122,1515,1520
	m.p.164-165°C
1 606	.HNMR(DMSO-d6) 6 2.32(8,3H),3.31(8,3H),3.56(8,3H),5.06(8,2H),0.06(8,1H),0.93(4,9-9.0H;,H,M,H,H,H,H,H,H,H,H,H,H,H,H,H,H,H,H,H
200-1	=3.6,6.2Hz,2H),8.69(brs,1H) 18/KR-33367 2940 1605 1519 1484 1466 1449 1390 1229,1181,1158,1059,1006,987,831,817cm ⁻¹

Table 121

100	m.p.103-104°C 111NMR(DMSO-dc) δ 1.37(s,611),2.47-2.59(m,211),3.31(s,311),3.66(s,311),3.94-4.05(m,111),4.26-4.34(m,111),6.44(s,111),7.02(d,
) 00-1	J=7.6Hz,2H),7.18-7.35(m,4H),7.64(dd,J=3.4,6.6Hz,2H),8.77(brs,1H) IR(KBr)3400,2993,2961,2930,1607,1522,1486,1471,1454,1393,1226,1123,1072,835,819cm ⁻¹
3	m.p. 157-158°C HINMR(DMSO-ds) & 1.73(8,311), 1.77(8,311), 3.31(9,311), 3.72(8,311), 4.54(d, J=6.9Hz,2H), 5.47(t, J=7.2Hz,1H), 6.93(d, J=8.7Hz,2
80a-1	1B),7.05(s,11B),7.19(d,J=9.0Hz,2H),7.30-7.36(m,21B),7.70(dd,J=5.4,8.7Hz,2H) 1R(KBr)3406,2936,1712,1608,1519,1472,1444,1375,1235,839cm ⁻¹
	m.p.215-216°C
609-1	1114MIN(DIMOC-46) 0 2.071(8,011),0.00(8,011),0.09(8,011),0.00(11),1.00.1.01(11),1.12.1.03(M,6H),1.13(dd,d=6.0,6.0Hz,ZH
	IR(KBr)3494,3289,2938,1745,1698,1520,1471,1461,1378,1296,1239,1183,1159,829cm-1
	m.p.169.170°C
619	111NMR(DMSO-dc) & 1.64(8,311), 1.71(8,311), 2.41-2.46(m,2H), 3.32(8,3H), 3.73(8,3H), 3.97(t,J=6.6Hz,2H), 5.23(t,J=7.2Hz,1H),
210.	6.93(d,J=8.1Hz,2H),7.05(8,1H),7.20(d,J=7.2Hz,2H),7.30-7.36(m,2H),7.70(dd,J=4.5,7.5Hz,2H)
	IR(KBr)3424,2933,1701,1609,1519,1471,1379,1294,1248,1061,839cm ⁻¹
	m.p.167-168 € 'HNMR(CDCl3)
-611	=7.2Hz,1H),6.84(e,1H),7.08(e,2H),7.38(d,J=8.7Hz,2H),7.70(d,J=9.0Hz,2H)
	IR(KBr)3433,2932,1509,1475,1376,1359,1232,1177,1152,1085,966,874,797cm ⁻¹

Table 122

1.612	m.p.175-176°C HINMR(CDCL ₃) & 2.35(8,6H), 2.39(8,3H), 2.49(8,3H), 3.21(8,3H), 3.56(8,3h), 3.79(8,3H), 4.83(8,2H), 6.84(8,1H), 7.10(8,2H), 7.22(d ,J=7.5Hz,2H), 7.38(d,J=8.4Hz,4H), 7.70(d,J=9.0Hz,2H) IR(KBr)3434,2936,1510,1475,1363,1229,1176,1152,1083,964,871,803cm ⁻¹
1.613	m.p.138-139°C HINMR(CDCE), \(\delta\) 1.69(8,311), 1.75(8,313), 2.33(8,611), 2.52-2.55(m,211), 3.21(8,311), 3.56(8,311), 3.78(8,311), 3.79(t,J=6.9Hz,211), 5. 27(t,J=6.611z,111), 6.83(8,311), 7.08(8,611), 7.38(d,J=8.711z,211), 7.70(d,J=9.011z,211) IR(KBr)3432,2939, 1509, 1476, 1448, 1362, 1237, 1172, 1155, 1103, 1081, 963, 873, 800cm ⁻¹
1.614	ın.p.89-90°C IIINMR(DMSO-d ₆) δ 1.74(8,3H),1.77(8,3h),3.36(8,3H),3.67(8,3H),4.22(d,J=3.0Hz,2H),4.56(d,J=6.3Hz,2H),5.48(t,J=5.7Hz,1 H),6.93·6.96(m,3H),7.11(d,J=8.7Hz,2H),7.28·7.34(m,2H),7.68(dd,J=6.0,8.7Hz,2H) IR(KBr)3528,3418,2935,1608,1518,1472,1233,1004,836cm ⁻¹
1.615	m.p.89-90°C 'HNMR(DMSO-d ₆) δ 2.33(e,3H),3.36(s,3H),3.67(e,3H),4.22(d,J=3.9Hz,2H),4.59(t,J=4.2Hz,1H),5.09(e,2H),6.94(e,1H),7.02(d 'J=8.4Hz,2H),7.22(d,J=8.4Hz,4H),7.28-7.39(m,4H),7.68(dd,J=5.7,8.4Hz,2H) IR(KBr)3485,2931,1517,1473,1460,1383,1243,1225,1079,1014,1001,834,798cm ⁻¹
1.616	oil HINMR(DMSO-d ₆) & 1.75(e,3H),1.78(e,3H),2.47.2.52(m,2H),3.39(e,3H),3.71(e,3H),4.25(d,J=3.3Hz,2H),4.49(d,J=6.3Hz,2H), 5.46(t,J=5.7Hz,1H),6.91-6.95(m,3H),7.13(d,J=8.4Hz,2H),7.24-7.32(m,2H),7.67(dd,J=5.7,8.4Hz,2H) IR(KBr)3528,3419,2935,1608,1518,1472,1383,1232,1004,837cm ⁻¹

Table 123

1.617	m.p. 138-139% HINMR(DMSO-da) & 1.70(s,3H), 1.77(s,3H), 2.24(s,6H), 3.30(s,3H), 3.64(s,3H), 4.31(d,J=6.9Hz,2H), 5.56(t,J=6.6Hz,1H), 6.39(s, HI), 6.84(d,J=8.4Hz,2H), 6.91(s,2H), 7.44(d,J=8.4Hz,2H), 8.50(s,1H), 9.50(s,1H) IR(KBr)3400,2966,2934,1609,1519,1465,1444,1389,1362,1269,1228,1211,1194,1171,1118,1089,1027,953cm ⁻¹
1-618	
619-1	m.p.81-82°C HNMR(DMSO-da) & 1.70(8,311),1.76(8,311),2.18-2.30(m,2H),2.27(8,6H),3.34(8,3H),3.68(8,3H),3.80(t,J=4.5Hz,2H),5.34(t,J=5.1Hz,1H),6.43(8,1H),6.88(d,J=7.5Hz,2H),6.94(8,6H),7.46.7.50(m,2H),8.53(8,1H),9.54(8,1H) 1. (KBr)3410,2930,1612,1521,1479,1454,1395,1361,1265,1227,1174,1117,1090,1028,825cm ⁻¹
1-620	m.p.161-16 111NMR(C) d,J=8.411z, 1R(KBr)33
1.621	m.p.139-141°C ¹ HNMR(CDCl ₃) & 1.33(s,9H),1.68(s,3H),1.74(s,3H),2.54(q,J=6.9Hz,2H),3.19(s,3H),3.20(s,3H),3.39(s,3H),3.73(s,3H),4.05(t,J=6.9Hz,2H),5.21(t,J=6.9Hz,1H),7.33(d,J=1.9Hz,1H),7.02(d,J=8.7Hz,1H),7.29(dd,J=8.4,1.9Hz,1H),7.33(d,J=1.9Hz,1H),7.3 (d,J=8.7Hz,2H),7.66(d,J=8.7Hz,2H) ¹ ¹ ¹ ¹ ¹ ¹ ¹ ¹

Table 124

	m.p.197·199°C
-	HINMR(DMSO-d ₆) δ 2.33(s,3H),3.31(s,6H),3.43(s,3H),3.64(s,3H),3.74(s,3H),4.47(s,2H),5.19(s,2H),6.28(s,1H),7.21·7.25(m,4)
1-622	H), 7.35(d, J=8.7 Hz, 111), 7.40-7.44(m, 411), 7.70(d, J=9.011z, 2H)
	IR(KBr)3482,3386,1697,1519,1484,1368,1353,1150,872,813cm
	m.p.99-101°C
	111111111111111111111111111111111111
1-623	.811z,111),6.82(d,J=8.711z,211),7.01(d,J=8.011z,111),7.21(d,J=7.811z,211),7.39(d,J=7.8Hz,2H),7.41(d,J=8.7Hz,2H),9.02(brs,1H
),9.45(brs,1H)
	IR(KBr)3390, 1609, 1592, 1521, 1484, 1246, 1227, 1117, 1011, 810cm - 1
	m.p.215-217°C
	111111111111111111111111111111111111
1-024	H), $6.96(s, 1H)$, $7.02(s, 1H)$, 7.19 - $7.32(m, 3H)$, 7.40 - $7.50(m, 3H)$, 7.56 - $7.60(m, 1H)$, $7.85(d, J=0.9Hz, 1H)$, 8.58 - $8.60(m, 1H)$
	1R(KBr)3600-2600(br), 1611, 1599, 1500, 1477, 1445, 1395, 1264, 1238, 1210, 1052, 1029, 1008cm ⁻¹
	m.p.213-214°C
	1HNMR(CDCl3) & 2.36(9,3H),3.77(6,6H),6.70(dd,J=0.6,3.6Hz,1H),6.93(9,1H),6.96(6,1H),7.08-7.16(m,2H),7.24-7.28(m,2H),7.
620-1	51-7.60(m,4H),7.73(d,J=1.5Hz,1H),7.80-7.84(m,2H),8.03(d,J=9.0Hz,1H)
	IR(KBr)3600-2800(br), 1597, 1517, 1496, 1464, 1444, 1372, 1209, 1189, 1172, 1157, 1121, 1092, 1050, 1028cm ¹
	$HINMR(CHOCL_3+CD_3OD) \ \delta \ \ 3.13(s,3H), 3.81(s,3H), 5.19(s,2H), 6.97(s,1H), 6.99(s,1H), 7.14(d,J=8.7Hz,1H), 7.34-7.52(s,2H), 6.99(s,2H), 6.99(s,2H), 6.99(s,2H), 6.99(s,2H), 7.14(d,J=8.7Hz,1H), 7.34-7.52(s,2H), 6.99(s,2H), 6.99(s,2$
1-626	1-626 m,6H),7.61(d,J=2.1Hz,1H),7.73(d,J=8.4Hz,2H),8.12(d,J=8.4Hz,2H)
	IR(KBr)3432, 1616, 1520, 1494, 1452, 1388, 1352, 1282, 1261, 1211, 1186, 1175, 1113, 1058, 1033cm - 1
	$ \text{!HNMR(CDCl_3)} \ \delta \ \ 3.81(s,6H), \ \ 5.17(s,2H), \ \ 6.99(s,1H), \ \ 7.00(d,J=8.4Hz,1H), \ \ 7.09(dd,J=8.4\&1.8Hz,1H), \ \ 7.23(d,J=1.8Hz,1H), \ \ 7.09(dd,J=8.4\&1.8Hz,1H), \ \ 7.23(d,J=1.8Hz,1H), \ \ 7.23(d,J=1.8Hz,1H), \ \ 7.23(d,J=1.8Hz,1H), \ \ \ 7.23(d,J=1.8Hz,1H), \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
1.627	7.33-7.50 (m, 5H), 7.76(.d,J=8.4Hz,2H), 8.10(d,J=8.4Hz,2H)
	IR(KBr)3551,3520,3399,1615,1587,1576,1521,1488,1455,1383,1268,1245,1208,1126,1055,1034,1003cm ⁻¹

Table 125

1.628	¹ HNMR(CDCh) § 3.05(s,3H),3.47(s,3H),3.75(s,3H),5.15(s,2H),6.45(s,1H),6.94(dd,J=8.4&1.8Hz,1H),7.03(d,J=8.4Hz,1H),7.0 (d,J=1.8Hz,1H),7.30(d,J=8.1Hz,2H),7.36-7.51(m,5H),7.63(d,J=8.1Hz,2H) (d,J=1.8Hz,1H),7.30(d,J=8.1Hz,2H),7.36-7.51(m,5H),7.63(d,J=8.1Hz,2H) (d,J=1.8Hz,1H),7.30(d,J=8.1Hz,2H),7.36-7.51(m,5H),7.63(d,J=8.1Hz,2H)
1-629	¹ HNMR(CDCh ₃) δ 2.68(s,3H),3.07(s,3H),3.14(s,3H),3.55(s,3H),3.78(s,3H),5.19(s,2H),6.85(s,1H),7.16(d,J=8.7Hz,1H),7.27-7. 50(m,9H),7.62(d,J=9.0Hz,2H) 1R(KBr)3432,1611,1522,1482,1462,1392,1358,1295,1233,1178,1154,1119,1082,1012cm ⁻¹
1-630	¹ HINMR(CDCP ₃) δ 2.88(s,311), 3.08(s,311), 3.28(s,311), 3.30(s,311), 3.54(s,311), 3.79(s,311), 6.87(s,111), 7.32(d,J=8.4Hz,2H), 7.43 (d.d, J=8.4&2.1Hz, 111), 7.54-7.65(m,411) IR(KBr)3432,1612,1519,1481,1367,1332,1232,1177,1154,1077,1011cm ⁻¹
1-631	¹ HNMR(CDCl ₃) δ 1.57(s,3H), 169(s,3H), 2.66(s,3H), 2.97(s,3H), 3.13(s,3H), 3.54(s,3H), 3.77(s,3H), 4.31(d,J=7.2Hz,2H), 5.19(s,2H), 5.21-5.32 (m,1H), 6.86(s,1H),7.15(d,J=8.7Hz,1H),7.30-7.52(m,9H),7.63(d,J=8.4Hz,2H) 17.15(d,J=8.7Hz,1H),7.30-7.52(m,9H),7.63(d,J=8.4Hz,2H)
1-632	¹ HNMR(CDCl ₁) δ 1.45(s,3H),1.59(s,3H),1.66(s,3H),1.70(s,3H),2.97(s,3H),3.11(s,3H),3.64(s,3H),3.75(s,3H),4.28(d,J=8.4Hz,2H),4.32(d,J=8.4Hz,2H),5.18(s,2H),5.23(t,J=8.4Hz,1H)),5.29(t,J=8.4Hz,1H),6.70(s,1H),7.10(d,J=8.4Hz,1H)7.30-7.51(m,9H),7.58(d,J=8.4Hz,2H)
1-633	¹ HNMR(CDCL ₃) & 1.58(s,3H), 1.69(s,3H), 2.97(s,3H), 3.45(s,3H), 4.33(d,J=7.5Hz,2H), 5.16(s,2H), 5.24-5.33(m,1H), 5.69 (s, 1H), 5.87(s,1H), 6.47(s,1H), 6.95(d,d,J=8.4&2.1Hz,1H), 7.03(d,J=8.4Hz,1H), 7.09(d,J=2.1Hz,1H), 7.31-7.50(m,7H), 7.65 (d,J=8.4Hz,2H) (d,J=8.4Hz,2H), 7.31-7.50(m,7H), 7.65 (d,J=8.4Hz,2H)
1.634	¹ HNMR(CDCl ₃) & 1.57(s,3H),1.68(s,3H),2.66(s,3H),2.70(s,3H),3.13(s,3H),3.54(s,3H),3.78(s,3H),4.33(d,J=8.4Hz,2H),5.19(s, 2H),5.26(t,J=8.4Hz),6.86(s,1H),7.15(d,J=8.7Hz,1H),7.30-7.49(m,9H),7.63(d,J=8.4Hz,2H) 1R(KBr)1615,1517,1480,1372,1337,1233,1213,1178,1154,1076,1014cm ⁻¹

Table 126

1-635 =7.2Hz, 1H),6.25(s,1H),6.1 IR(KBr)3431,1611,1522,1 IR(KBr)3431,1611,1522,1 IR(KBr)3431,1611,1522,1 IR(KBr)3431,1611,1522,1 IR(KBr)3431,1611,1522,1 IR(KBr)3448,3265,1612,1 IR(KBr)1609,1526,1481,1 IR(KBr)1609,1520,1481,1 IR(KBr)1609,1520,1481,1 IR(KBr)1609,1520,1481,1 IR(KBr)3450,1609,1539,1481,1 IR(KBr)3450,1609,1539,1481,1 IR(KBr)3450,1609,1539,1481,1 IR(KBr)3450,1609,1539,1 IR(KBr)3450,1609,1539,1 IR(KBr)3457,1739,1529,1 IR(KBR	-1.2142,111),6.25(8,111),6.86(8,111),7.17(d,J=9.01tz,111),7.23-7.32(m,2H),7.41(d,J=8.7Hz,2H),7.63(d,J=7.2Hz,2H),5.27(t,J=7.21tz,111),6.25(8,111),6.26(8,111),7.17(d,J=9.01tz,111),7.23-7.32(m,2H),7.41(d,J=8.7Hz,2H),7.63(d,J=8.7Hz,2H),7.63(d,J=8.7Hz,2H),7.17(d,J=8.7Hz,111),6.25(8,111),6.22,1482,1364,1337,1294,1231,1178,1153,1077,1014cm ⁻¹ -1.21tz,111,1522,1482,1364,1337,1294,1231,1178,1153,1077,1014cm ⁻¹ -1.21tz,111,1522,1482,1364,1330,1297,1243,1257,1112,1069,971cm ⁻¹ -1.21tz,111,6.46(d,J=6.91tz,111),6.89-7.01(m,2H),7.05(d,J=0.6Hz,111),7.30(d,J=8.7Hz,2H),7.65(d,J=8.7Hz,2H),7.65(d,J=8.7Hz,2H),7.65(d,J=6.9Hz,111),6.86(s,1H),7.09(d,J=8.4Hz,1H),7.32-7.44(m,4H),7.63(d,J=8.4Hz,2H),7.65(d,J=6.9Hz,111),6.86(s,1H),7.09(d,J=8.4Hz,1H),7.32-7.44(m,4H),7.63(d,J=8.4Hz,2H),7.169(s,3H),7.169(s,3H),7.181,118,1078,1015cm ⁻¹ -1.63(d,J=8.4Hz,2H) -1.63(s,3H), 1.69(s,3H), 1.76(s,3H), 1.82(s,3H), 2.97(s,3H), 3.45(s,3H), 3.75(s,3H), 4.32(d,J=7.8Hz,2H),7.91(s,3H), 1.76(s,3H), 1.82(s,3H), 2.97(s,3H), 3.46(s,3H), 3.75(s,3H), 4.32(d,J=7.8Hz,2H),7.91(s,3H), 4.32(d,J=7.8Hz,2H),7.91(s,3H), 4.32(d,J=7.8Hz,2H),7.91(s,3H), 2.97(s,3H), 3.45(s,3H), 3.75(s,3H), 4.32(d,J=7.8Hz,2H),7.91(s,3H), 2.97(s,3H), 3.46(s,3H), 3.75(s,3H), 4.32(s,3H), 2.97(s,3H), 2.97(s,3H), 3.46(s,3H), 4.32(s,3H), 2.97(s,3H), 2.97(s,3H), 3.46(s,3H), 4.32(s,3H), 2.97(s,3H),
=7.2 z,	H), 6.86(8, 111), 7.17(d, J=9.0Hz, 1H)), 7.23-7.32(m, 2H), 7.41(d, J=8.7Hz, 2H), 7.63(d, J=8.7Hz, 2H) 1522, 1482, 1364, 1337, 1294, 1231, 1178, 1163, 1077, 1014cm ⁻¹ 176(8, 3H), 1.82(8, 3H), 3.09(8, 3H), 3.47(8, 3H), 3.75(8, 3H), 4.62(d, J=6.9Hz, 2H), 5.47-5.68(m, 1H), 5.71(8, 1H), 1.82(8, 3H), 3.09(8, 3H), 7.05(d, J=0.6Hz, 1H), 7.30(d, J=8.7Hz, 2H), 7.65(d, J=8.7Hz, 2H) 1612, 1686, 1521, 1487, 1330, 1287, 1243, 1225, 1162, 1112, 1069, 971cm ⁻¹ 1.57(8, 3H), 1.69(8, 3H), 1.77(8, 3H), 1.81(8, 3H), 2.70(8, 3H), 3.24(8, 3H), 3.24(8, 3H), 3.354(8, 3H), 7.32-7.44(m, 4H) 1.67(8, 3H), 1.69(8, 3H), 1.76(8, 3H), 1.82(8, 3H), 2.97(8, 3H), 3.45(8, 3H), 3.75(8, 3H), 4.32(d, J=7.8Hz, 2H), 5.88(8, 3H), 1.69(8, 3H), 1.76(8, 3H), 1.82(8, 3H), 2.97(8, 3H), 3.45(6, 3H), 3.75(8, 3H), 4.32(d, J=7.8Hz, 2H), 5.88(8, 3H), 1.69(8, 3H), 1.69(8, 3H), 1.69(8, 3H), 2.97(8, 3H), 2.97(8, 3H), 3.45(6, 3H), 3.75(8, 3H), 4.32(d, J=7.8Hz, 2H), 5.88(8, 3H), 1.69(8, 3H), 1.69(8, 3H), 1.69(8, 3H), 2.97(8, 3H), 2.97(8, 3H), 3.45(6, 3H), 3.75(8, 3H), 4.32(d, J=7.8Hz, 2H), 5.88(8, 3H), 1.69(8, 3H), 1.69(8, 3H), 2.97(8, 3H), 3.45(8, 3H), 3.75(8, 3H), 3.
111(KBr)34 111NMR(C) 5.87 (s, 111 111(KBr)34 111NMR(C) 4,J=6.9Hz 7.63(d,J=6 11HNMR(C) 11H), 7.40 (11R(KBr)34 11HNMR(C) 2.1Hz, 1H) 11R(KBr)34 11R(KBr)34	1622, 1482, 1364, 1337, 1294, 1231, 1178, 1153, 1077, 1014cm ⁻¹ 76(8,3H), 1.82(8,3H), 3.09(8,3H), 3.47(8,3H), 3.75(8,3H), 4.62(d,J=6.9Hz,2H), 5.47-5.58(m,1H), 5.71(8,1H), 11H), 6.60(8,1H), 6.60(8,1H), 6.89-7.01(m,2H), 7.05(d,J=0.6Hz,1H), 7.30(d,J=8.7Hz,2H), 7.65(d,J=8.7Hz,2H) 1.67(8,3H), 1.69(8,3H), 1.77(8,3H), 1.81(8,3H), 2.70(8,3H), 2.97(8,3H), 3.24(8,3H), 3.54(8,3H), 3.54(8,3H), 7.32-7.44(m,4H) 1.67(8,3H), 1.69(8,3H), 1.76(8,3H), 1.82(8,3H), 2.97(8,3H), 3.45(8,3H), 3.75(8,3H), 4.32(d,J=7.8Hz,2H), 5.88(8,3H), 1.69(8,3H), 1.76(8,3H), 1.82(8,3H), 2.97(8,3H), 3.45(6,3H), 3.75(8,3H), 4.32(d,J=7.8Hz,2H), 5.88(8,3H), 1.69(8,3H), 1.76(8,3H), 1.82(8,3H), 2.97(8,3H), 3.45(6,3H), 3.75(8,3H), 4.32(d,J=7.8Hz,2H), 5.88(8,3H), 1.69(8,3H), 1.69(8,3H
111NMR(C) 5.87 (8, 111) 11R(KBr)34 111NM-R(C) 4,J=6.9Hz, 7.63(d,J=6) 11H), 7.40 (6) 11H), 7.40 (6) 11H), 7.40 (7) 11H, 7.40 (7)	1H), 6.60(8, 1H), 1.82(8, 3H), 3.07(8, 3H), 3.75(8, 3H), 4.62(d, J=6.9Hz, 2H), 5.75.6(d, J=8.7Hz, 1H), 6.71(8, 1H), 6.60(8, 1H), 6.80-7.01(m, 2H), 7.05(d, J=0.6Hz, 1H), 7.30(d, J=8.7Hz, 2H), 7.65(d, J=8.7Hz, 2H) (6.12, 1685, 1521, 1487, 1330, 1287, 1243, 1225, 1162, 1112, 1069, 971cm ⁻¹ 1.57(θ, 3H), 1.69(θ, 3H), 1.77(θ, 3H), 1.81(θ, 3H), 2.70(θ, 3H), 2.97(θ, 3H), 3.24(θ, 3H), 3.54(θ, 3H), 3.78(θ, 3H), 4.32(d, J=6.6Hz, 2H), 5.27(t, J=6.9Hz, 1H), 5.49(t, J=6.6Hz, 1H), 6.86(θ, 1H), 7.09(d, J=8.4Hz, 1H), 7.32-7.44(m, 4H) (41, 1365, 1339, 1292, 1270, 1236, 1178, 1153, 1118, 1078, 1015cm ⁻¹ 1.69(θ, 3H), 1.69(θ, 3H), 1.76(θ, 3H), 2.97(θ, 3H), 3.45(θ, 3H), 3.75(θ, 3H), 4.32(d, J=7.8Hz, 2H), 5.81(θ, 3H), 1.69(θ, 3H), 1.76(θ, 3H
5.87 (8, 111 IR(KBr)334 11NMAR(C d,J=6.9Hz, 7.63(d,J=6 IR(KBr)16 1HNMR(C 1H), 7.40 (IR(KBr)34 1HNMR(C) 2.1Hz, 1H) IR(KBr)34	IH), 6.60(8, 1H), 6.89-7.01(m,2H), 7.05(d, J=0.6Hz, 1H), 7.30(.d, J=8.7Hz,2H), 7.65(d, J=8.7Hz,2H). I.67(s, 1621, 1687, 1521, 1487, 1230, 1287, 1243, 1225, 1162, 1112, 1069, 971cm ⁻¹ I.67(s, 3H), 1.69(s, 3H), 1.77(s, 3H), 1.81(s, 3H), 2.70(s, 3H), 2.97(s, 3H), 3.24(s, 3H), 3.54(s, 3H), 3.78(s, 3H), 4.32(s, 3H), 4.32(s, 3H), 7.32-7.44(m, 4H) I.67(s, 3H), 1.69(s, 3H), 1.76(s, 3H), 1.82(s, 3H), 2.97(s, 3H), 3.45(s, 3H), 3.75(s, 3H), 4.32(d, J=7.8Hz, 2H), 5.88(s, 3H), 1.69(s, 3H), 1.76(s, 3H), 1.82(s, 3H), 2.97(s, 3H), 3.45(s, 3H), 3.75(s, 3H), 4.32(d, J=7.8Hz, 2H),
IR(KBr)34 "IINM-R(C d,J=6.9Hz, 7.63(d,J=E IR(KBr)16 "HNMR(C 4.63(d,J=7.40 (IH), 7.40 (IR(KBr)34 "HNMR(C 2.1Hz, 1H) IR(KBr)34	(d, J=6.6Hz, 211, 1487, 1330, 1287, 1243, 1225, 1162, 1112, 1069, 971cm ⁻¹ 1.67(4, 311), 1.69(4, 311), 1.77(4, 311), 1.81(6, 311), 2.97(6, 311), 3.24(6, 311), 3.54(6, 311), 3.54(6, 311), 4.32((d, J=6.6Hz, 111), 6.49(t, J=6.6Hz, 111), 6.86(8, 111), 7.09(d, J=8.4Hz, 111), 7.32-7.44(m, 411) 1.481, 1365, 1339, 1292, 1270, 1236, 1178, 1163, 1118, 1078, 1015cm ⁻¹ 1.69(8, 311), 1.69(8, 311), 1.76(8, 311), 1.82(8, 311), 2.97(9, 311), 3.45(6, 311), 4.32(d, J=7.8Hz, 211),
11NM~R(C d,J=6.9Hz, 7.63(d,J=6 IR(KBr)16 1HNMR(C) 4.63(d,J=7 1H), 7.40 (IR(KBr)34 1HNMR(C) 2.1Hz, 1H) IR(KBr)34	1.57(θ,3H), 1.69(θ,3H), 1.77(θ,3H), 1.81(θ,3H), 2.70(β,3H), 2.97(β,3H), 3.24(β,3H), 3.54(β,3H), 3.78(β,3H), 4.32((d, J=6.6Hz,2H), 5.27(t, J=6.9Hz,1H), 5.49(t, J=6.6Hz,1H), 6.86(β,1H), 7.09(d, J=8.4Hz,1H), 7.32-7.44(m,4H) (441, 1365, 1339, 1292, 1270, 1236, 1178, 1153, 1118, 1078, 1015cm ⁻¹ (58(β,3H), 1.69(β,3H), 1.76(β,3H), 1.82(β,3H), 2.97(β,3H), 3.45(β,3H), 3.75(β,3H), 4.32(d, J=7.8Hz, 2H),
d,J=6.9Hz, 7.63(d,J=6 IR(KBr)16 1HNMR(CI 4.63(d,J=7 1H), 7.40 (IR(KBr)34 1HNMR(CI 2.1Hz, 1H) IR(KBr)34	(d,J=6.6Hz,2H),5.27(t,J=6.9Hz,1H),5.49(t,J=6.6Hz,1H),6.86(s,1H),7.09(d,J=8.4Hz,1H),7.32-7.44(m,4H) 1481,1365,1339,1292,1270,1236,1178,1163,1118,1078,1015cm ⁻¹ 158(s,3H), 1.69(s,3H), 1.76(s,3H), 1.82(s,3H), 2.97(s,3H), 3.45(s,3H), 3.75(s,3H), 4.32(d,J=7.8Hz,2H),
17.63(d, J=6 1R(KBr)16 1HNMR(CI 4.63(d, J=7 1H), 7.40 (1R(KBr)34 1HNMR(CI 2.1Hz, 1H) 1R(KBr)34	.1481, 1365, 1339, 1292, 1270, 1236, 1178, 1153, 1118, 1078, 1015cm ⁻¹ .58(s, 3H), 1,69(s, 3H), 1,76(s, 3H), 1,82(s, 3H), 2,97(s, 3H), 3,46(s, 3H), 3,75(s, 3H), 4,32(d, J=7.8Hz, 2H),
IR(KBr)16 1HNMR(C 4.63(.4,)=7 1H), 7.40 (IR(KBr)34 1HNMR(C 2.1Hz, 1H) IR(KBr)34	(481, 1365, 1339, 1292, 1270, 1236, 1178, 1153, 1118, 1078, 1015cm ⁻¹ , 58(8, 3H), 1,69(8,3H), 1,76(8,3H), 1,76(8,3H), 1,82(8,3H), 2,97(8,3H), 3,45(8,3H), 3,75(8,3H), 4,32(d,J=7.8Hz,2H),
1HNMR(C) 4.63(d,J=7 1H), 7.40 (IR(KBr)34 1HNMR(C) 2.1Hz, 1H) IR(KBr)34	.58(8.3H), 1.63(8,3H), 1.76(8,3H), 1.82(8,3H), 2.97(8,3H), 3.45(8,3H), 3.75(8,3H), 4.32(4,J=7.8Hz,2H),
4.63(.d,J=7 1H), 7.40 (1R(KBr)34 "HNMR(C) 2.1Hz, 1H) IR(KBr)34	
1H), 7.40 (IR(KBr)34 'HNMR(C 2.1Hz, 1H) IR(KBr)34	.8Hz,2H),5.23-5.33(m,1H),5.48-5.57(m,1H),5.69(e,1H),5.85(e,1H),6.46(e,1H),6.89-7.02(m,2H), 7.05 (d, J=1.8Hz,
1R(KBr)34 1HNMR(C) 2.1Hz, 1H) 1R(KBr)34	1H), 7.40 (d, J= 8.7Hz, 2H), 7.65(d,J=8.7Hz,2H)
14NMR(C) 2.1Hz, 1H) 1R(KBr)34	IR(KBr)3450, 1609, 1588, 1557, 1525, 1487, 1445, 1327, 1248, 1114, 1114, 1072, 1015cm ⁻¹
2.1Hz, 1H) IR(KBr)34	HNMR(CDCl ₃) \$\delta\$ 2.55(8,3H), 2.67(8,3H), 3.58(8,3H), 3.79(8,3H), 5.18(8,2H), 5.71(6,1H), 6.85(8,1H), 6.91 (d.d. J=8.4&
IR(KBr)3467,1739,1529,	7.03(d,J=8.4Hz,1H), 7.04(d,J=2.1Hz,1H), 7.32-7.48 (m, 6H), .7.85(.d.d,J=7.8&1.5Hz,1H),8.22(d,J=1.5Hz,1H)
	IR(KBr)3467,1739,1529,1481,1407,1376,1346,1279,1243,1177,1128,1071,1012cm ⁻¹
HNMR(CDCI3) 0 2.67	DCl ₃) δ 2.67(s,3H),2.68(s,3H),3.13(s,3H),3.58(s,3H),3.80(s,3H),5.19(s,2H),6.86(s,1H),7.15(d,J=8.7Hz,1H),7.31-
1.640 7.49 (m, 8H), 7.83 (d.d, $J=$	7.49 (m, 8H), 7.83 (d.d,J=8.1&1.8Hz,1H),8.21(d,J=1.8Hz,1H)
IR(KBr)3433,1609,1530,1	IR(KBr)3433,1609,1630,1481,1372,1290,1268,1238,1177,1118,1075,1012cm ⁻¹

Table 127

	5	7	,			,	5)		ſ
1.641	"HINMR(CDCB) & 2.67(s,3H), 3.50(s,3H), 3.77(s,3H), 5.16(s,2H), 5.70(s,1H), 5.83(s,1H), 6.47(s,1H), 6.94 (d.d, J= &1.8Hz,1H), 7.04 (.d, J=8.7Hz,1H), 7.07(d,J=1.8Hz,1H), 7.34-7.48(m,5H), 7.82(d.d,J=8.1&1.8Hz,1H), 8.26(.d,J=1.8Hz,1H) HR(RB)3555,3377,1590,1529,1503,1451,1414,1341,1324,1242,1225,1121cm ⁻¹	HINMR(CDCB) & 2.67(s,3H), 3.50(s,3H), 3.77(s,3H), 5.16(s,2H), 5.70(s,1H), 5.83(s,1H), 6.47(s,1H), 6.94 (d.d. J=8.7 & 1.8Hz,1H), 7.07(d,J=1.8Hz,1H),7.34.7.48(m,5H),7.82(d.d,J=8.1&1.8Hz,1H),8.26(.d,J=1.8Hz,1H) HIX,1H),1324,1225,1121cm ⁻¹	l), 3.77(s,3l d,J=1.8Hz,1 1414,1341,1	l), 5.16(s,2l H),7.34-7.48 324,1242,12	1), 5.70(s,1H (m,5H),7.82(c) 25,1121cm ⁻¹	, 5.83(s,11 .d,J=8.1&1	(), 6.47(s, 1).8.	(H), 6.94 .26(.d,J=1.	(d.d, J=8 8Hz,1H)	7.
-642	HINMR(CDCl ₃) & 2 m,7H) IR(KBr)3407,1624,1	HINMR(CDCL3) & 2.29(s,3H),2.68(s,3H),3.12(s,3H),3.56(e,3H),3.76(s,3H),5.18(s,2H),6.85(e,1H),7.00-7.20(m,4H),7.31-7.49(m,7H) m,7H) IR(KBr)3407,1624,1518,1480,1361,1287,1270,1234,1175,1117,1084,1009cm	3.12(s,3H),3 1270,1234,1	3.56(a,3H),3. ²	76(s,311),5.18 84,1009cm	s,2H),6.85(9, 1H), 7.00-	7.20(m,4H),7.31-7.4	<u>``</u>
-643	411NMR(CDCB ₃) δ 2.40(8,3H), 2.67(8,3H), 3.09(8,3H), 3.13(8,3H), 3.59(8,3H), 3.78(8,3H), 5.19(8,1H) d,J=8.4Hz, HI), 7.30-7.49(m,9H), 7.69(d,J=1.8Hz, 1H) [IR(KBr)3433,3304,1608,1519,1481,1365,1326,1294,1269,1237,1177,1156,1114,1079,1015cm ⁻¹	41NMR((2DC3a) & 2.40(8,3H),2.67(8,3H),3.09(8,3H),3.13(8,3H),3.59(8,3H),3.78(8,3H),5.19(8,1H),6.17(8,1H),6.85(8,1H),7.15(4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,	3.09(s,3H),3 :1.8Hz,1H) 1326,1294,1	269,1237,11	:9(в,:311),3.78(s,3H),5.19(a	3,111),6.17(8,1H),6.85((8,1H),7.1	ě
-644		¹ HNMR(CDCl ₃) δ 2.09(s,3H),2.39(s,3H),2.68(s,3H),3.13(s,3H),3.49(s,3H),3.76(s,2H),5.19(s,2H),6.30(s,1H),6.77(s,1H),7.12-7.24(m,3H),7.31-7.49(m,9H),7.54(d,J=1.8Hz,1H),7.67(d,J=8.4Hz,2H) IR(KBr)3434,1608,1519,1481,1366,1293,1269,1237,1164,1114,1081,1016cm ⁻¹	2.68(s,3H),3 Hz,1H),7.67 1269,1237,1	(d,J=8.4Hz,2 (10,J=8.4Hz,2 164,1114,10	19(s,3H),3.76(H) 31,1016cm ⁻¹	8,2H),5.19(3,2H),6.30(8,1H),6.77((s, 1H), 7.1	ė l
-645	¹ HNMR(CDCl ₃) δ 2.09(s,3H), 2.39(s,3H), 3.43(s,3H), 3.73(s,3H), 5.16(s,2H), 5.30(s,1H), 5.68(s,1H), 5.89(s,1H), 6.32(s,1H), 6.32(s,1H), 6.36 (s, 1H), 6.95(d,d,d=8.7&2.1Hz,1H), 7.03(d,d=8.7Hz,1H), 7.03(d,d=8.7Hz,1H), 7.03(d,d=8.7Hz,1H), 7.68 (d,d=8.4Hz,2H) 1 - 1.5 Hz, 1 H j, 7.68 (d,d=8.4 Hz,2H) 1 R(KBr)3465,3270,1612,1587,1558,1519,1487,1454,1384,1244,1160,1123,1105,1091,1070,1009cm. ¹	09(s,3H), 2.39(s,3H), 1,J=8.7&2.111z,111),7 1,J=8.4Hz,2H) 612,1587,1558,1519,	3.43(s,3H), .03(d,J=8.71	3.73(s,3H), fz,1H),7.08(c 384,1244,11	5.16(s,2H), 5. ,J=2.1Hz,1H 50,1123,1105	30(s,1H), 5. 1,7.14-7.28(i 1091,1070,	68(s, 1H), 5 m,3H),7.34 1009cm ⁻¹	.89(s, 1H), -7.50(m, 5H	6.32(s, 1H l), 7.61 (.	(F
-646	"HNMR(CDCL ₁) δ 2.48(e,3H),2.63(e,3H),3.02(e,3H),3.13(e,3H),3.28(e,2H),3.54(e,3H),3.78(e,3H),5.19(e,2H),6.85(e,1H),7.15(d,J=8.4Hz,1H),7.30-7.49(m,9H),7.59(e,1H) 1R(KBr)3433,1606,1519,1481,1364,1341,1292,1272,1233,1178,1148,1118,1082cm ⁻¹	.48(s,3H),2.63(s,3H), 7.49(m,9H),7.59(s,1F 519,1481,1364,1341,	3.02(a,3H),3 l) 1292,1272,1	.13(s,3H),3.2 233,1178,11	.8(s,2H),3.54(e,3H),3.78(e	,3H),5.19(e	8,2H),6.85(s, 1H), 7.1	ĕ
-647	¹ HNMR(CDCl ₃) δ 2.48(8,3H), 3.02(8,3H), 3.28(8,3H), 3.46(8,3H), 3.75(8,3H), 5.16(8,2H), 5.70(8,1H), 5.84(8,1H), 6.47(8,1H), 6.97(8,1H), 6.97(8,1H), 7.33-7.53(m,7H), 7.62(d,J=1.8Hz,1H), 7.03(d,J=8.4Hz,1H), 7.07(d,J=2.1Hz,1H), 7.33-7.53(m,7H), 7.62(d,J=1.8Hz,1H) [1.8Hz,1H] [1.8Hz,1H], 1.8Hz,1H2,1H2,1H2,1H2,1H2,1H2,1H2,1H2,1H2,1H2	48(a,3H), 3.02(a,3H), Hz,1H), 7.03(.d,J=8.4 609,1584,1558,1517,	3.28(s,3H), 1Hz,1H),7.07 1487,1454,1	3.46(e,3H), 7(d,J=2.1Hz, 331,1317,113	3.75(8,3H), 5. 1H),7.33-7.53 37,1115,1068	16(a,2H), 5. (m,7H),7.62 1002cm ⁻¹	70(s,1H), 6 (d,J=1.8Hz	2,1H),	6.47(8,1H	<u>.</u>

Table 128

.

1-648	
	m, 111),6.30(s, 1111),6.84(s, 111),7.17(d, J=8.714z, 111),7.25-7.32(m, 211),7.39(d, J=8.4Hz, 111),7.45(d.d, J=8.4&1.811z, 111),
_	=1.8Hz,1H)
	IR(KBr)3431,1609,1522,1481,1365,1334,1294,1235,1178,1150,1077,1013cm ⁻¹
	$ \Pi NMR(CDCl_3) \delta 1.54(s, 3H), 1.68(s, 3H), 1.76(s, 3H), 1.81(s, 3H), 2.45(s, 3H), 2.68(s, 3H), 3.02(s, 3H), 3.24(s, 3H), 3.52(s, 3H), 3.78(s, 3H),$
	,3H),4.10-4.34(m,2H),4.64(d,J=7.2Hz,2H),5.21-5.30(m,1H),5.45-5.53(m,1H),6.84(e,1H),7.08(d,J=8.4Hz,1H),7.31-7.48(m,4H
649	,7.53(d,J=1.5Hz,1H)
	IR(KBr)3432,1606,1518,1481,1362,1340,1292,1276,1236,1177,1153,1116,1076,1010cm ⁻¹
	HNMR(CDCi3) & 1.56(8,3H), 1.68(8,3H), 1.76(8,3H), 1.82(8,3H),2.44(8,3H),3.02(8,3H),3.45(8,3H),3.75(8,3H),4.10-4.32(m,2H),
	4.62 (d.J=7.211z,2H),5.22.5.32(m,1H),5.48.5.57(m,1H),5.60.5.80(brroad,1H), 5.82(s,1H), 6.46(s,1H), 6.92 (d.d. J=8.1
1-650	&1.8Hz,1H), 6.97(d, J=8.1Hz, 1H), 7.04(d,J=1.8Hz,1H), 7.38(d,J=8.1Hz,1H), 7.47(d.d,J=8.1&1.8Hz,1H), 7.57 (d,
	J=1.8Hz,1H)
	IR(KBr)3433,1610,1586,1557,1518,1486,1336,1240,1149,1110,1069cm ⁻¹
	HNMR(CD3OD) 6 3.33(s,3H),3.66(s,3H),5.18(s,2H),6.42(s,1H),1H),6.75(dd,J=8.4&2.1Hz,1H),6.87(d,J=2.1Hz,1H),6.95(d,J
1.651	=8.4Hz,1H),7.26-7.58(m,8H),7.81(d.d,J=7.8&1.2Hz,1H)
	IR(KBr)3446,1698,1586,1517,1498,1481,1454,1408,1287,1247,1117,1069,1010cm ⁻¹
	$HNMR(CDC_{13}) \ \delta \ 1.76(8,3H), 1.81(8,3H), 2.76(8,3H), 3.23(8,3H), 3.43(8,3H), 3.72(8,3H), 3.76(8,3H), 4.64(d,J=6.6Hz,2H), 5.50(t,J=0.4H)$
1.652	=6.6Hz,1H),6.78(s,1H),7.08(d,J=8.7Hz,1H),7.33-7.51(m,4H),7.56-7.63(m,1H),7.96(d.d,J=7.5&1.2Hz,1H)
	IR(KBr)1725,1609,1520,1480,1400,1366,1295,1260,1178,1119,1073,1010cm ⁻¹
	HINMR(CDCl ₃) § 2.38(8,3H),2.72(8,3H),3.12(8,3H),3.43(8,3H),3.73(8,3H),3.76(8,3H),5.14(8,2H),6.79(8,1H),7.13-7.24(m,3H),
I-653	1.653 7.30.7.38(m,3H),7.41.7.51(m,3H),7.56-7.63(m,1H),795(d.d,J=7.5&1.2Hz,1H)
-	IR(KBr)1725,1610,1620,1481,1401,1370,1293,1262,1179,1119,1076,1011cm ⁻¹

Table 129

1-654	HINMR(CDCL ₃) & 1.75(s, 3H), 1.81(s, 3H), 3.56(s, 3H), 3.72(s, 3H), 4.60(d, J=6.6Hz, 2H), 5.29(s, 1H), 5.46-5.56(m, 1H), 5.56-6.00(br oud, 1H), 6.42(s, 1H), 6.94(s, 2H), 7.05(s, 1H), 7.43-7.52(m, 2H), 7.56-7.65(m, 1H), 7.99(d, J=8.7Hz, 1H) [R(RBr)3433,1697,1585,1517,1481,1454,1410,1287,1244,1117,1068cm]
1-655	"HINMR(CDCE,) & 2.39(8,3H),3.37(8,3H),3.72(8,3H),5.10(8,2H),6.41(8,1H),6.94(dd,J=8.1&2.1Hz,1H),7.02(d,J=8.1Hz,1H),7.0 6(d,J=2.1Hz,1H),7.23(d,J=7.8Hz,2H),7.35(d,J=7.8Hz,2H),7.42-7.63(m,3H),7.96(d,J=7.8Hz,1H) IR(KBr)3538,3443,1686,1518,1458,1413,1253,1116,1069,1010cm ⁻¹
999-1	nr.p.110-112% 'HNMR(CDCL;) & 1.69(s,3H),1.74(s,3H),2.55(q,J=7.1Hz,2H),3.20(s,3H),3.21(s,3H),3.39(s,3H),3.70(s,3H),4.07(t,J=7.1Hz,2H),5.22(t,J=7.1Hz,1H),6.28(s,1H),7.09(d,J=8.4Hz,1H),7.32(dd,J=8.4,2.0Hz,1H),7.36(d,J=8.9Hz,2H),7.37(d,J=2.0Hz,1H),7.69(d,J=8.9Hz,2H)]R(KBr)3477,3402,1607,1518,1481,1365,1151,111,872,813cm ⁻¹
1-657	m.p.159-162°C 'HNMR(DMSO-d ₆) ô 1.64(8,3H),1.71(8,3H),2.45(q,J=6.7Hz,2H),3.27(8,3H),3.59(8,3H),3.96(t,J=6.7Hz,2H),4.22(8,2H),5.26(t,J=6.7Hz,1H),6.17(8,1H),6.60(dd,J=8.1,2.0Hz,1H),6.67(d,J=2.0Hz,1H),6.83(d,J=8.7Hz,2H),6.95(d,J=8.1Hz,1H),7.42(d,J=8.7Hz,2H),8.99(8,1H),9.46(8,1H) 11z,211),8.89(8,1H),9.46(8,1H) 11R(KBr)3447,3401,3361,1611,1622,1486,1260,1228,1122,1001,814cm ⁻¹
1-658	m.p.146-147°C 14NMR(CDCl ₃) δ 1.14(t,J=7.2Hz,3H),1.76(d,J=0.9Hz,3H),1.81(d,J=0.3Hz,3H),2.70(e,3H),3.20(e,3H),3.23(e,3H),3.72(q,J=7.2Hz,2H),3.78(e,3H),3.78(e,3H),7.14(m,4H),7.31-7.41(m,4H),7.66-7.74(m,2H) 2Hz,2H),3.78(e,3H),4.64(d,J=6.6Hz,2H),5.49(m,1H),6.84(e,1H),7.09(d,J=8.4Hz,1H),7.31-7.41(m,4H),7.66-7.74(m,2H) 1R(CHCl ₃)2930,1608,1517,1479,1369,1148,1116,1082,969,872cm ⁻¹
I-659	m.p.174-175°C ¹ HNMR(CDCl ₃)

Table 130

	m.p.147.5-148°C
	41NMR(CDCLs) & 1.14(t,J=7.2Hz,3H),1.68(s,3H),1.74(d,J=0.9Hz,3H),2.50-2.59(m,2H),2.72(s,3H),3.20(s,3H),3.22(s,3H),3.7
099-1	$2(q,J=7.211z,21),3.77(s,311),4.07(d,J=6.911z,211),5.21(m,111),6.84(s,111),7.07(d,J=8.7Hz,111),7.31\cdot7.42(m,411),7.66\cdot7.74(m,2111),7.01(d,J=8.7Hz,111),7.31\cdot7.42(m,411),7.66\cdot7.74(m,21111),7.01(d,J=8.7Hz,1111),7.31\cdot7.42(m,4111111111111111111111111111111111111$
	<u> </u>
	IR(CHCh, 2930, 1607, 1517, 1480, 1369, 1148, 1118, 1082, 1025, 969, 872cm
	m.p.154-157°C
	111NMR(CDCL) & 1.15(t, J=7.2Hz, 3H), 1.76(s, 3H), 1.82(s, 3H), 3.60(q, J=7.2Hz, 2H), 3.76(s, 3H), 4.61(d, J=6.9Hz, 2H), 4.93(s, 1H),
199-1	5.53(m,1H),5.69(s,1H),5.96(s,1H),6.45(s,1H),6.80-6.98(m,4H),7.07(m,1H),7.51-7.58(m,2H)
	IR(CHCl ₃)3592,3528,2976,2934,1611,1521,1488,1460,1384,1286,1243,1169,1112,1068,994,885,824cm ⁻¹
	m.p.130.5-133℃
	$^{\rm i} {\rm HNMR}({\rm CDC}(1_3) \ \delta \ 1.15(t, J=7.2 {\rm Hz}, 3 {\rm H}), 2.39(s, 3 {\rm H}), 3.59(q, J=7.2 {\rm Hz}, 2 {\rm H}), 3.74(s, 3 {\rm H}), 4.83(s, 1 {\rm H}), 5.10(s, 2 {\rm H}), 5.66(s, 1 {\rm H}), 5.97(s, 1 {\rm H}), 1.00(s, 2 {\rm H}), 1$
I-662), 6.44(s, 1H), 6.87-6.94(m, 2H), 6.96(dd, $J=1.8, 8.4$ Hz, 1H), 7.02(d, $J=8.4$ Hz, 1H), 7.09(d, $J=1.8$ Hz, 1H), 7.19-7.26(m, 2H), 7.30-7.38(
	m,2H),7.51.7.58(m,2H)
	IR(CHCI;)3524,1612,1521,1488,1460,1383,1286,1246,1113,1069,1027,907,873cm ⁻¹
	aniorphous powder
	1HNMR(CDCl ₃) δ 1.15(t,J=7.2Hz,3H),1.68(d,J=0.6Hz,3H),1.74(d,J=0.9Hz,3H),2.48·2.56(m,2H),3.60(q,J=7.2Hz,2H),3.74(e,
1-663	$3H), 4.06(d, J=6.9Hz, 2H), 4.95(s, 1H), 5.22(m, 1H), 5.68(s, 1H), 5.96(s, 1H), 6.44(s, 1H), 6.88\cdot6.99(m, 4H), 7.06(d, J=1.2Hz, 1H), 7.51-1$
	7.58(m,2H)
	IR(CHCl ₃)3528,2972,1611,1521,1488,1384,1286,1246,1112,1068,1024,883,824cm ⁻¹
	m.p.113·116°C
	$^{1}\text{HNMR}(\text{CDC})_{3}) \delta \ \ 2.55(\text{s}, \text{GH}), \\ 3.45(\text{s}, \text{3H}), \\ 3.74(\text{s}, \text{3H}), \\ 6.31(\text{s}, \text{2H}), \\ 6.44(\text{s}, \text{1H}), \\ 6.92(\text{d}, \text{J} = 8.7 \text{Hz}, \text{2H}), \\ 6.94(\text{dd}, \text{J} = 8.7 \text{Hz}, \text{2H}), \\ 6.94(\text{s}, \text{J} = 8.7 \text{Hz}, \text{2H}), \\ 6.94(\text{dd}, \text{J} = 8.4, \text{2.1} \text{Hz}, \text{1H}), \\ 7.10 \\ $
1-004	(s,1H),7.10(d,J=2.1Hz,1H),7.20(d,J=8.7Hz,1H),7.52(d,J=8.7Hz,2H)
	IR(Nujol)3491,3443,3304,3155,1662,1608,1523,1492,1464,1251,1215,1111,1067,811,782cm ⁻¹

Table 131

50	45	io	35	no .	25	20	5	0	· ·
999-1	m.p.>260°C 'HNMR(CD ₂ OD) & 3.39(8,311),3.68(8,311),5.40(8,211),6.44(8,111),6.83(dd,J=8.4,2.1Hz,1H),6.85(d,J=8.7,2H),6.90(d,J=2.1Hz,1 H),7.11(d,J=8.4Hz,1H),7.46(d,J=8.7Hz,2H) HR(Nujol)3350,2668,1611,1695,1530,1488,1458,1402,1253,1213,1116,1073,1016,837,817,781cm ⁻¹	,OD) & 3.39(8,3H),3.68(8,3H),5. 8.4Hz,1H),7.46(d,J=8.7Hz,2H) 50,2668,1611,1695,1530,1488,1	.68(8,311),5.40(=8.7112,211) 1530,1488,1458	,s,211),6.44(s,1	11),6.83(dd,J=	8.4,2.1Hz,1H;	,6.85(d,J=8.7,	211),6.90(d,J=	:2.1Hz,1
1-666	foam HNMR(CD) d,J=8.4Hz, 11 IR(Nujol)163	(3a) \(\delta = 2.34(s, 3H), 2.44(s, 3H), 2.83(s, 3H), 3.12(s, 3H), 3.22(s, 3H), 3.55(s, 3H), 3.78(s, 3H), 4.92(s, 2H), 6.85(s, 1H), 7.17(s), 7.37 \simeq 7.42(m, 2H), 7.39(d, J=8.7Hz, 2H), 7.68(d, J=8.7Hz, 2H) 38, 1608, 1519, 1480, 1459, 1177, 1151, 1079, 971, 876, 844, 798cm - 1	44(6,3H),2.83(e),7.39(d,J=8.7H)	8,311),3.12(8,3 12,211),7.68(d,	II),3.22(8,3II), ,J=8.7IIz,2II) 6,844,798cm	3.55(8,3H),3.7	8(s,311),4.92(e	3,2H),6.85(s, I	H),7.17(
I-667	foam !HNMR(CDCl ₃)	Cl ₃) δ 2.07(s,3H),2.53(s,3H),2.96(s,3H),3.23(s,3H),3.27(s,3H) H),7.33~7.41(m,2H),7.39(d,J=8.7Hz,2H),7.67(d,J=8.7Hz,2H) 24,1688,1610,1520,1481,1464,1234,1177,1151,1123,1081,876	53(s,3H),2.96(s),7.39(d,J=8.7F 481,1464,1234	8,3H),3.23(8,3l 4z,2H),7.67(d,	H),3.27(6,3H), J=8.7Hz,2H) 123,1081,876,7	3.54(e,3H),3.7	8(s,3H),4.86(s	,2H),6.86(s, 1]	H),7.11(
1.668	m.p.221.223°C 'HNMR(DMSO-da) & 3.30(a,3H),3.64(a,3H),5.16(a,2H),6.39(a,1H),6.66(dd,J=8.4,2.1Hz,1H),6.77(d,J=2.1Hz,1H),6.84(d,J=8. 7Hz,2H),7.00(d,J=8.4Hz,1H),7.34(a,1H),7.44(d,J=8.7Hz,2H),8.43(a,1H) IR(Nujol)3535,3411,1611,1582,1621,1488,1463,1244,1194,1135,1119,1074,1014,930,826,809cm ⁻¹	16) δ 3.30(8,3H) =8.4Hz,1H),7.34 11,1611,1582,11	,3.64(8,3H),5.1 4(8,1H),7.44(d, 521,1488,1463	16(s,2H),6.39(s) J=8.7Hz,2H);	8,1H),6.66(dd,. 8.43(s,1H) ⁻ 135,1119,1074	J=8.4,2.1Hz,1	H),6.77(d,J=2	.1Hz,1H),6.84	l(d,J=8.
699-1	foam HINMR(CDCl ₃) & 2.79(s,3H),3.17(s,3H),3.22(s,3H),3.55(s,3H),3.78(s,3H),5.21(s,2H),6.85(s,1H),7.19(d,J=8.4Hz,1H),7.23(s, 1H),7.38(dd,J=8.7,2.1Hz,1H),7.39(d,J=8.7Hz,2H),7.42(d,J=2.1Hz,1H),7.68(d,J=8.7Hz,2H),7.94(s,1H) IR(Nujol)1608,1519,1480,1463,1177,1151,1119,1079,971,876,798cm ⁻¹	Di.) δ 2.79(s,3H),3.17(s,3H),3.22(s,3H),3.55(s,3H),3.78(s,3H),5.21(s,2H),6.85(s,1H),7.19 J=8.7,2.1Hz,1H),7.39(d,J=8.7Hz,2H),7.42(d,J=2.1Hz,1H),7.68(d,J=8.7Hz,2H),7.94(s,1H) 8,1519,1480,1463,1177,1151,1119,1079,971,876,798cm ⁻¹	17(s,3H),3.22(s 9(d,J=8.7Hz,2l	,3H),3.55(s,3F H),7.42(d,J=2,	H),3.78(8,3H),£ 1Hz,1H),7.68(1,798cm ⁻¹	5.21(a,2H),6.8 a,J=8.7Hz,2H	5(e,1H),7.19(d]),7.94(e,1H)	,J=8.4Hz,1H)	,7.23(8,

Table 132

1.670	m.p.198-201°C HINMR(DMSO-dc) & 2.88(s,3H),3.39(s,3H),3.45(s,3H),3.52(s,3H),3.78(s,3H),4.58(s,2H),5.60(s,1H),7.07(s,1H),7.29(dd,J=9.0 ,1.8Hz,1H),7.30(d,J=1.8,Hz,1H),7.37(d,J=9.0Hz,1H),7.48(d,J=8.7Hz,2H),7.74(d,J=8.7Hz,2H),9.39(s,1H) 1R(Nujol)3576,3500,3405,3391,1668,1607,1590,1520,1480,1462,1175,1156,1081,1014,880,836,826,801cm ⁻¹
1.671	foum HINMR(CDCh.) & 2.61(s,311),2.73(s,311),3.21(s,311),3.23(s,311),3.75(s,311),3.78(s,311),5.32(s,211),6.84(s,111),7.17(d,J=8.4Hz, HI),7.36(dd,J=8.4,2.111z,111),7.38(d,J=8.7,Hz,211),7.43(d,J=2.111z,111),7.68(d,J=8.711z,211),8.46(s,111),8.75(s,111) IR(Nujol)1608,1519,1481,1463,1177,1151,1080,971,876,798cm ⁻¹
1.672	fonm HINMR(CDCL _{ii}) & 2.75(s,3H),3.21(s,3H),3.25(s,3H),3.55(s,3H),3.78(s,3H),5.37(s,2H),6.84(s,1H),7.17(d,J=8.4Hz,1H),7.36(dd ,J=8.4,2.1Hz,1H),7.38(d,J=8.7,Hz,2H),7.43(d,J=2.1Hz,1H),7.68(d,J=8.7Hz,2H),8.59(s,1H),8.92(s,1H) 1R(Nujol)1608,1519,1480,1463,1177,1151,1080,971,876,798cm ⁻¹
1.673	foam 111NMR(CDCL)) & 2.70(8,3H),3.15(8,3H),3.21(8,3H),3.55(8,3H),3.78(8,3H),5.14(8,2H),6.77(m,2H),6.84(8,1H),7.19(m,2H),7.26 (d,J=8.4Hz,1H),7.37(d,J=2.1Hz,1H),7.38(dd,J=2.1,8.4Hz,1H),7.68(d,J=8.4Hz,2H)
1.674	m.p.153·156°C 1HNMR(CDCl ₃) δ 2.18(8,3H),2.81(8,3H),3.18(8,3H),3.22(8,3H),3.55(8,3H),3.79(8,3H),5.14(8,2H),6.86(8,1H),7.18(dd,J=8.1,8.1,1.1H),7.24(d,J=8.1Hz,1H),7.24(d,J=8.1Hz,1H),7.24(d,J=8.1Hz,1H),7.24(d,J=8.1Hz,1H),7.26(d,J=8.4Hz,1H),7.36(d,J=1.8Hz,1H),7.38(d,J=8.4Hz,2H),7.39(dd,J=1.8,8.4Hz,1H),7.43(dd,J=8.1Hz,1H),7.67(d,J=8.4Hz,2H),7.90(d,J=8.1Hz,1H) 1R(KBf)3384,1689,1519,1481,1364,1177,1151,1079,970,874,798cm ⁻¹

Table 133

55

50	45	40	35	30	25	20	15	10	5
25	foam HINMR(CDCE) & 2.76(8,3H),3.16(8,3H),3.22(8,3H),3.23(8,3H),3.55(8,3H),3.78(8,3H),5.23(8,2H),6.85(8,1H),7.23(dd,J=7.5,7. 5Hz,1H),7.37(8,2H),7.38(d,J=8.4Hz,2H),7.43(m,3H),7.54(d,J=7.5Hz,1H),7.68(d,J=8.4Hz,2H) 1R(KBr)3435,1609,1519,1481,1364,1177,1152,1079,972,876,798cm ¹	2.76(s,3H),3.1 7.38(d,J=8.41 519,1481,136	6(s,3H),3.22(s 4z,2H),7.43(m,	,3H),3.23(s,3H ,3H),7.54(d,J:	l),3.55(6,3H), =7.5Hz,1H),7. 798cm ⁻¹	3.78(8,3H),6.5 68(d,J=8.4Hz	23(s,211),6.	85(s,1H),7.23(dd,J	=7.5,7.
9/	m.p. 163-165°C HINMR(CDCL ₃) & 2.78(s,3H),3.03(s,3H),3.21(s,3H),3.45(s,6H),3.55(s,3H),3.79(s,3H),5.31(s,2H),6.84(s,1H),7.22(d,J=8.4Hz, HI),7.37(dd,J=2.4,8.4Hz,1H),7.38(d,J=8.4Hz,2H),7.42(m,2H),7.53(m,2H),7.67(d,J=8.4Hz,2H),7.68(m,1H) IR(KBr)1609,1519,1481,1365,1176,1161,1080,973,875,799cm ¹	2.78(s,3H),3.0 4Hz,1H),7.3E	3(s,311),3.21(s 1(d,J=8.411z,21 16,1161,1080,9	,311),3.45(8,61 1),7.42(m,214) 773,875,799cm	I),3.56(s,3H), 1,7.53(m,2H),7	3.79(8,3H),5.: 7.67(d,J=8.4H	31(8,2H),6. [z,2H),7.68	84(s,1H),7.22(d,J= (m,1H)	8.4Hz,
7.7	m.p.153-156°C ¹ HNMR(CDCl ₃)	2.69(s,3H),2.9 7.46(m,5H),7 481,1365,117	8(s,3H),3.17(s, .38(d,J=8.4Hz 7,1149,1079,9	,3H),3.21(s,3l ,2H),7.68(d,J: 63,876,799cn	1),3.33(s,3H), =8.4Hz,2H),7.	3.56(e,3H),3.7 72(m,1H)	78(s,3H),5.	44(8,2H),6.84(8,1H),7.21(
œ	foam HINMR(CHCHCh), δ 2.60(s, 311), 2.75(s, 611), 3.17(s, 311), 3.21(s, 311), 3.55(s, 311), 3.78(s, 311), 5.31(s, 211), 6.83(s, 111), 7.08(dd, J=7.5, 7.51z, 111), 7.17(d, J=7.51z, 111), 7.30(dd, J=2.1, 8.4Hz, 111), 7.32(dd, J=7.51z, 111), 7.37(d, J=8.4Hz, 211), 7.38(d, J=2.11z, 111), 7.52(d, J=7.5Hz, 111), 7.68(d, J=8.4Hz, 211), 7.38(d, J=2.11z, 111), 7.52(d, J=7.5Hz, 111), 7.68(d, J=8.4Hz, 211), 111z, 111, 111z, 111, 111z, 111, 111	60(s,:111),2.7 4Hz,1H),7.17 52(d,J=7.5Hz 480,1365,123	6(s,6II),3.17(s, (d,J=7.5Hz,1) (1H),7.68(d,J= (5,1177,1161,1)	.311),3.21(s,31 H),7.30(dd,J= -8.4Hz,2H)	1),3.55(8,31!),2.1,8.4Hz,1H)	3.78(s,3H),5.3),7.32(dd,J=7.	11(8,2H),6.: .5,7.5Hz,1]	83(s, 1H),7.08(dd,J: H),7.37(d,J=8.4Hz,	=7.5,7. 2H),7.
6	m.p.95-97°C 'HNMR(CDCl ₃) δ 1.76(s,3H),1.80(s,3H),3.03(s,3H),3.21(s,3H),3.56(s,3H),3.75(s,3H),4.63(d,J=6.9Hz,2H),4.93(s,2H),5.51(m, 1H),6.66(s,1H),7.05(d,J=8.4Hz,1H),7.09·7.17(m,2H),7.37(dd,J=2.4,8.4Hz,1H),7.44(d,J=2.4Hz,1H),7.51·7.58(m,2H) 1R(KBr)3435,2936,1605,1519,1475,1382,1365,1232,1161,1109,1080cm ⁻¹	76(s,3H),1.80 d,J=8.4Hz,1E	(s,3H),3.03(s,; l),7.09-7.17(m, 5,1382,1365,1	3H),3.21(s,3H ,2H),7.37(dd,c 232,1161,110),3.56(s,3H),3 J=2.4,8.4Hz,1 9,1080cm ⁻¹	1.75(8,3H),4.6; H),7.44(d,J=2	3(d, J=6.9H	[z,2H),4.93(s,2H),5 7.51-7.58(m,2H)	.51(m,

Table 134 .

1.680	m.p.142-144°C HINMR(CDCL3) & 1.76(8,311), 1.81(8,311), 3.07(8,311), 3.77(8,311), 4.61(d,J=6.6Hz,211), 4.90(8,2H), 5.51(m,1H), 5.65(8, 1H), 6.66(8,1H), 6.92(m,2H), 7.03(m,1H), 7.09-7.17(m,2H), 7.52-7.58(m,2H) IR(KBr)3455, 2964, 2932, 1606, 1583, 1519, 1479, 1387, 1283, 1227, 1153, 1115, 1080, 1094, 1004cm
1-681	m.p.158-160°C HINMR(CDCL), Ø 1.76(9,3H), 1.81(8,3H), 3.20(8,3H), 3.42(8,3H), 3.76(8,3H), 4.63(d,J=6.6Hz,2H), 5.51(m,1H), 6.04(8,1H), 6.43(9, HI), 7.07(d,J=8.4Hz,1H), 7.11-7.19(m,2H), 7.42(dd,J=2.1,8.4Hz,1H), 7.50(d,J=2.1Hz,1H), 7.58-7.65(m,2H) HR(KBr)3505,3440,1613,1522,1489,1386,1352,1292,1227.1109,1013cm ⁻¹
1-682	m.p.175-178°C ¹ HNMR(CDCl ₃) δ 1.63(e,3H), 1.92-2.13(m,4H), 3.22(e,3H), 3.42(e,3H), 3.76(e,3H), 4.13(t,J=6.3Hz,2H), 6.04(e,1H), 7.00(e,1H), 7.11-7.19(m,2H), 7.43(dd,J=2.1,8.4Hz,1H), 7.49(d,J=2.1Hz,1H), 7.57-7.65(m,2H) ¹ IR(KBr)3467,2973,2943,1613,1523,1489,1359,1232,1113,1072cm ⁻¹
1-683	powder 11INMR(CDCha) & 1.69(e,3H),1.75(e,3H),2.48-2.57(m,2H),3.08(e,3H),3.57(e,3H),3.74(e,3H),4.06(t,J=6.9Hz,2H),4.90(e,2H),5. 22(m,1H),5.64(e,1H),6.66(e,1H),6.91(m,2H),7.03(m,1H),7.08-7.17(m,2H),7.52-7.59(m,2H) IR(KBr)3432,2930,1604,1583,1518,1475,1382,1280,1249,1222,1160,1111,1082cm ⁻¹
1.684	m.p.161-163°C HINMR(CDCh ₁) & 1.69(s,3H),1.73(s,3H),2.50-2.59(m,2H),3.19(s,3H),3.42(s,3H),3.76(s,3H),4.06(t,J=6.9Hz,2H),5.21(m,1H),6. 02(s,1H),6.43(s,1H),7.05(d,J=8.4Hz,1H),7.11-7.19(m,2H),7.42(dd,J=2.4,8.4Hz,1H),7.50(d,J=2.4Hz,1H),7.57-7.65(m,2H) IR(KBr)3457,2937,1613,1523,1489,1465,1390,1361,1295,1234,1185,1110,1072,1013cm ⁻¹

Table 135

50	4 5	40	35	30	25	20	15	10	5
	m.p.156-158°C								
1-685		7.1.76(a,311), 1.8 2H), 7.29(d, J=8	81(s,311),3.21(3.7Hz,2H),7.3	(н,311),3.42(н,3 7(d,J=8.7Hz,2.	H),3.76(s,3H) H),7.71(d,J=8),4.54(d,J=6,9l) (,7Hz,2H)	lz,2fl),5.52(t,4	J=6.9Hz, 1H),6.9	94(s, 1H
	1R(KBr)1734,151	7,1464,1360,12	237,1150,106	1,988,862cm	_				
	m.p.189-191°C	-							
	HINMR(CDCla) &	3.21(8,311),3.	21(8,311),3.42	(s,3H),3.61(s,	3H),3.76(s,3H),5.09(8,211),6.3	94(a, 111),7.10((d,J=8.4Hz,2H)	,7.28-7.
989-1	48(m,9H),7.71(d,J=8.4Hz,2H)	J=8.411z,2H)							
	IR(KBr)1727,1518,1469,1365,1239,1152,1061,865cm	8,1469,1365,12	239,1152,106	1,865cm					
	m.p.112-113°C								
00	HNMR(CDCI)(3) 6 1.68(8,3H), 1.74(8,3H), 2.50(q,J=7.2Hz,2H), 3.21(6,3H), 3.42(6,3H), 3.62(8,3H), 3.76(9,3H), 3.96(t,J=7.2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,2Hz,	1.68(s,3H),1.7	74(s,3H),2.50((q,J=7.2Hz,2H),3.21(s,3H),3	3.42(s,3H),3.62	(s,3H),3.76(s,3	3H),3.96(t,J=7.5	2Hz,2H
1.08/),5.23(t,J=7.2Hz,1H),6.92(d,J=8.8Hz,2H),6.93(s,1H),7.28(d,J=8.8Hz,2H),7.37(d,J=8.8Hz,2H),7.71(d,J=8.8Hz,2H)	1H),6.92(d,J=8.	.8Hz,2H),6.93	1(8,1H),7.28(d,	J=8.8Hz,2H),	7.37(d,J=8.8H	z,2H),7.71(d,J	=8.8Hz,2H)	
	IR(KBr)1735,1519	9,1469,1361,12	346,1153,1050	0,877,861,847,	791cm ⁻¹				
	m.p.191-193°C						,		
000	'HNMR(DMSO-do	6) δ 1.73(8,3H)	,1.76(s,3H),3.	31(8,3H),3.71	(s,3H),4.54(d,	J=6,9Hz,2H),5	.46(t,J=6.9Hz	$ SO-d_6\rangle \delta 1.73(8,3H), 1.76(8,3H), 3.31(8,3H), 3.71(8,3H), 4.54(d,J=6,9Hz,2H), 5.46(t,J=6.9Hz,1H), (8,1H), 6.87(d,J=8)$	7(d,J=8
1-089	7Hz,2H),6.91(s,1H),6.92(d,J=8.7Hz,2H),7.19(d,J=8.7Hz,2H),7.48(d,J=8.7Hz,2H),9.59(s,1H),12.8(brs,1H)	H),6.92(d,J=8.7	7Hz,2H),7.19	(d,J=8.7Hz,2H	1),7.48(d,J=8.	7Hz,2H),9.59(8	,1H),12.8(brs,	1H)	
	IR(KBr)3462,169	5,1609,1520,14	72,1231,117	7,1062,1001,8	37cm ¹				
	m.p.229-232°C								
000	HNMR(DMSO-de	6) & 3.31(s,3H),	,3.71(s,3H),5.	12(s,2H),6.87(d,J=8.8Hz,2F	I),6.98(s, 1H),7.	.01(d,J=8.8Hz	[SO-d6] & 3.31(8,3H),3.71(8,3H),5.12(8,2H),6.87(d,J=8.8Hz,2H),6.98(8,1H),7.01(d,J=8.8Hz,2H),7.21(d,J=8.8Hz,2	8.8Hz,2
1-689	H),7.34-7.50(m,7H),9.58(s,1H),12.8(brs,1H)	H),9.58(s,1H),1:	2.8(brs, 1H)						
	IR(KBr)3424,3238,1685,1610,1521,1464,1379,1235,1180,1057,1001,826cm-1	8,1685,1610,15	31,1464,1375	1235,1180,10	57,1001,826c	.m-1			

228

Table 136

1-690	m.p.171.172°C HINMR(DMSO-da) & 1.64(a,31D,1.70(a,31I),2.43(q,J=6.9Hz,21I),3.31(a,31I),3.70(a,31I),3.96(t,J=6.9Hz,2II),5.23(t,J=6.9Hz,1 H),6.87(d,J=8.8Hz,2II),6.91(d,J=8.8Hz,2II),6.98(a,1II),7.19(d,J=8.8Hz,2II),7.48(d,J=8.8Hz,2II),9.58(a,1II),12.8(brs,1II) IR(KBr)3402,3266,1689,1612,1521,1470,1376,1241,1181,1063,1001,829cm ⁻¹
1.69.1	mp191-193°C HINMR(CDCh.) δ 2.65(s,3H), 3.52(s,3H), 3.77(s,3H), 5.17(s,2H), 5.70(s,1H), 6.83(s,1H), 6.91(dd,J=1.8,8.1Hz,1H),7.00- 7.05(m,2H), 7.10 -7.19 (m,2H), 7.34-7.45(m,5H),7.57-7.65(m,2H) IR(KBr)3039,2934,1606,1523,1487,1391,1358,1290,1228,1077,1019,947,831,815,803cm ⁻¹
1.692	mp172-173°C "HNMR(CDCl ₁₃)
1.693	mp129-132°C 'HNMR(CDCl ₃) δ 3.44(s,3H), 3.53(s,3H), 3.75(s,3H), 5.20(s,2H), 5.26(s,2H), 5.91(s,1H), 6.44(s,1H), 7.01(d,J=8.1Hz,1H), 7.08 (dd, J=1.8Hz, 8.1Hz,1H), 7.11-7.18(m,2H),7.28-7.50(m,6H),7.57-7.64(m,2H) 1R(KB ₁)2996,2962,2932,2895,1609,1522,1488,1229,1120,1075,999,911,815,724,582cm ⁻¹
I-694	mp124-126°C 'HNMR(CDCl ₃) δ 1.76(d,J=0.6Hz,3H), 1.80(d,J=0.9Hz,3H), 2.69(2H,s), 3.54(s,3H), 3.57(s,3H), 3.76(s,3H), 4.64(d,J=6.6Hz,2H), 5.26(s,3H), 5.54(m,1H),6.86(s,1H),6.98(d,J=8.7Hz,1H),7.13-7.25(m,3H),7.38-7.43(m,3H) 1R(CHCl ₃)2935,2855,1675,1603,1520,1481,1387,1370,1247,1178,1158,1134,1081,1003,961,839,814cm ⁻¹

Table 137

55

50	45	40	35	30	25	20	15	10	5
	mp141-142°C. 411NMR(CDCla) & 2.34(8,311), 2.48(8,311), 5.16(8,211), 5.70(8,111), 6.82(dd,J=8.4,2.1112,111), 6.97-7.00(m,211), 7.07-7.13(m,411), 7.32-7.46(m,7H) 7.13(m,411), 7.32-7.46(m,7H) 1R(CHCla)3543,3023,2871,1604,1587,1520,1489,1469,1383,1267,1243,1158,1126,1014,957,877,839cm-1	2.34(s,311), .46(m,7H)	2.48(8,311), 8	5.16(8,211), 9.1469.138;	6.70(8,1H),	6.82(dd,J=8.4,2	.1Hz,1H),	6.97-7.00(m,2H),	7.07-
	mp178-180°C. HINMR(CIDCh.) & 2.75(s,3H), 3.18(s,3H), 3.55(s,3H), 3.76(s,3H), 5.18(s,2H), 5.72(s,1H), 6.87(s,1H), 7.00(d,J=8.7Hz,1H), 7.15 (dd, J=8.7, 2.111z,1H), 7.24-7.28(m,2H), 7.36-7.50(m,8H) IR(CHCh.)3543,3027,2939,1519,1481,1371,1330,1254,1204,1177,1150,1082,1005,969,873cm ⁻¹	2.75(s,3H), 3.1 Hz,111), 7.24-7 77,2939,1519,1-	8(s,3H), 3.55 28(m,2H), 7.3	(s,3H), 3.76 36-7.50(m,8 0,1254,1204	(8,3H), 5.18(H)	(a,2H), 5.72(a,1H), 6.87(s, 11	1), 7.00(d,J=8.7H	z,1H),
	mp129-130°C ¹ HNMR(CDCl ₁)	2.24(s,3H), 2.29 1,1604,1520,1	9(s,3H), 3.12(e	s,3H), 5.18(e	,2H), 7.08-7.	14(m,5H), 7.25-7 007.972.957.882	.50(m,9H)	-	
	mp124·125°C 'HNMR(CDCl ₃) δ 1.77(s,3H), 1.81·1.82(d,J=0.9Hz,3H), 2.24(s,3H), 2.28(s,3H), 3.22(s,3H), 4.63(d,J=6.6Hz,2H), 5.52(m,1H), 7.04·7.14(m,5H), 7.24·7.34(m,4H) IR(KBr)2978,2924,2868, 1893,1771,1604,1520,1489,1368,1290,1261,1169,1109,1046,973,957,882,740,816cm ⁻¹	24-7.34(m,4H) 28-7.34(m,4H)	1.1604,1520,1	Hz,3H), 2.2	4(8,3H), 2.28	(e,3H), 3.22(s,3H), 4.63(d,J≔	6.6Hz,2H), 6.52(n	n, 1H),
	oil ¹HNMR(CDCl₃) δ 1.69(s,3H), 1.74-1.75(d,J=0.9Hz,3H), 2.24(s,3H), 2.28(s,3H), 2.55(m,2H), 3.5 4.10(t,J=6.9Hz,2H), 5.22(m,1H), 7.03-7.14(m,5H), 7.24-7.34(m,4H) IR(CHCl₃)2970,2926,2875,1605,1520,1490,1470,1368,1292,1277,1169,1110,1016,973,958,878,840,819cm ⁻¹	1.69(s,3H), 1.74-1.75(d,J=0.9Hz,3H), 6.22(m,1H), 7.03-7.14(m,5H), 7.24-7.34(m,6,5H), 7.24-7.34(m,6,1605,1605,1600,1470,1368,1292,12	1.74-1.75(d., .03-7.14(m,5F	J=0.9Hz,3H I), 7.24-7.34), 2.24(s,3H), (m,4H) 1277,1169,1110	 2.28(s, 3H), 110,1016,973,956 	2.55(m,2H), 3.878.840.819e	a,3H),	4.05-
	mp121-123°C 'HNMR(CDCl ₃) ô 2.24(a,3H), 2.83(s,3H), 2.98(s,3H), 3.11(a,3H), 5.13(s,2H), 7.08·7.14(m,4H), 7.21-7.37(m,9H) IR(CHCl ₃)2925,1605,1520,1489,1369,1262,1169,1014,1003,972,957,882,840,816cm ⁻¹	.24(8,3H), 2.83 5,1520,1489,13	(s,3H), 2.98(s	,3H), 3.11(s	3H), 5.13(s,2 972,957,882	lH), 7.08-7.14(m, 840,816cm.	4H), 7.21-7	.37(m,9H)	

Table 138

1.701	mp 215-217 °C HI NMR (CDCL ₃) & 2.73 (s, 3H), 3.13 (s, 3H), 3.18 (s, 3H), 3.57 (s, 3H), 3.78 (s, 3H), 5.20 (s, 2H), 6.86 (s, 1H), 7.16 (d, J = 8.7 Hz, 1H), 7.35-7.50 (m, 9H), 7.56 (dd, J = 8.4, 2.4 Hz, 1H), 7.62 (d, J = 2.4 Hz, 1H) H. CHCL ₃ 2939, 1613, 1519, 1480, 1371, 1294, 1254, 1176, 1119, 1083, 1003, 970, 871, 849, 816 cm ⁻¹
1.702	mp 71-73 °C 1H NMR (CDCl ₃)
1.703	oil ¹ HI NMR (CDCl ₃) δ 1.69 (s, 3H), 1.75-1.76 (d, J = 0.9 Hz, 3H), 2.24 (s, 3H), 2.28 (s, 3H), 2.50-2.57 (td, J = 6.9, 6.3 Hz, 2H), ⁴ .05-4.10 (t, J = 6.3 Hz, 2H), 5.24 (m, 1H), 5.70 (s, 1H), 6.81 (dd, J = 8.4, 1.8 Hz, 1H), 6.90 (d, J = 8.4 Hz, 1H), 6.96 (d, J = 1.8 Hz, 1H), 7.06-7.13 (m, 4H), 7.26-7.34 (m, 2H) ¹ R. (CHCl ₂) 3540, 2972, 2925, 2877, 1604, 1586, 1520, 1490, 1387, 1293, 1267, 1246, 1158, 1127, 1016, 957, 839 cm ⁻¹
1.704	mp 113-115 °C 1H NMR (CDCl ₃)

Table 139

1	
	foam 111 NMR (CDCla) & 3.20 (s, 3H), 3.27 (s, 3H), 3.43 (s, 3H), 3.73 (s, 3H), 4.37 (br d, J = 5.7 Hz, 2H), 4.58 (s, 2H), 5.16 (s,
1.705	2H), 5.68 (s, 1H), 6.82 (dd, J = 8.2, 1.7 Hz, 1H), 6.88 (s, 1H), 6.97 (d, J = 1.7 Hz, 1H), 6.98 (d, J = 8.2 Hz, 1H), 7.35-7.47 (m, 7H), 7.71 (d, J = 8.7 Hz, 2H) 1H), 7.71 (d, J = 8.7 Hz, 2H) 1R (KBr) 3464, 1515, 1474, 1369, 1230, 1199, 1176, 1149, 1039, 873 cm ⁻¹
1.706	foam 411 NMR (CDCE) & 2.42 (hr s, 111), 3.12 (s, 311), 3.22 (s, 311), 3.74 (s, 311), 4.49 (br s, 111), 5.18 (s, 211), 6.85 (s,
	III), 7.15 (d, J = 8.6 Hz, III), 7.27 (dd, J = 8.6, 2.0 Hz, III), 7.35-7.50 (m, 8H), 7.71 (d, J = 8.6 Hz, ZH) IR (KBr) 3583, 3435, 1519, 1467, 1412, 1229, 1180, 1150, 1022, 875, 849, 798, 742, 706 cm $^{+}$
	mp 120-121 °C III NMR (CDCE) & 3.45 (8, 311), 3.45 (8, 311), 3.75 (8, 311), 4.66 (8, 211), 4.77 (8, 211), 5.15 (8, 211), 5.67 (8, 111), 5.91 (8, 111),
1-707	6.47 (s, 1H), 6.96 (dd, J = 8.4, 1.9 Hz, 1H), 7.03 (d, J = 8.4 Hz, 1H), 7.09 (d, J = 1.9 Hz, 1H), 7.37.7.47 (m, 7H), 7.64 (d, J =
	8.4 Hz, 2H) IR (KBr) 3504, 3461, 1522, 1485, 1466, 1384, 1466, 1384, 1283, 1245, 1197, 1110, 1042, 925, 812, 749 cm ⁻¹
	mp 156-158 °C ¹
I-708	6.88 (s, 1H), 7.12 (d, J = 8.7 Hz, 1H), 7.27 (dd, J = 8.7, 2.1 Hz, 1H), 7.35-7.50 (m, 8H), 7.70 (d, J = 8.7 Hz, 2H) IR (KBr) 1514, 1469, 1360, 1177, 1149, 1099, 1042, 870 cm ⁻¹
	mp 188-190 ℃ ¹ H NMR (CDCl ₃) δ 1.70 (t, J = 5.7 Hz, 1H), 3.45 (s, 3H), 3.75 (s, 3H), 4.77 (d, J = 5.7 Hz, 2H), 5.16 (s, 2H), 5.68 (s, 1H),
I-709	5.91 (8, 1H), 6.47 (8, 1H), 6.96 (dd, J = 8.5, 1.7 Hz, 1H), 7.03 (d, J = 8.5 Hz, 1H), 7.09 (d, J = 1.7 Hz, 1H), 7.37-7.48 (m, 7H),
	7.65 (d, J = 8.4 Hz, 2H) IR (KBr) 3547, 3492, 3451, 1521, 1487, 1385, 1288, 1249, 1209, 1108, 1011, 746, 702 cm. ¹

Table 140

11. 11. 12. 13. 13. 13. 13. 13. 13. 13. 13. 13. 13	
	I NMR (CDCla)
	= 8.1, 2.1 Hz, 1H), 6.84 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.93 (d, J = 2.1 Hz, 1H), 7.00 (d, J = 8.7 Hz, 1H), 7.38-7.48 (m, H), 7.54 (d, J = 9.0 Hz, 2H) R (KBr) 3447, 3214, 1609, 1518, 1477, 1459, 1391, 1260, 1221, 1008, 984, 833, 799, 751 cm. ¹
运	5. (F)
	≅
	11 NMR ((3183) 6 2.85 (4, 311), 3.22 (4, 311), 3.30 (4, 311), 3.54 (4, 311), 3.78 (8, 311), 6.02 (8, 211), 6.85 (8, 111), 7.08 (4, J =
- xc	8.4 Hz, 1H), 7.32 (d, J = 2.1 Hz, 1H), 7.37 (dd, J = 8.4, 2.1 Hz, 1H), 7.39 (d, J = 8.7 Hz, 2H), 7.67 (d, J = 8.7 Hz, 2H)
IR	IR (Nujol) 3423, 3320, 3215, 1610, 1519, 1480, 1454, 1176, 1151, 1080, 969, 876, 798 cm ⁻¹
<u>ē</u>	fonm
	111 NMR (CDCl ₃) 6 2.62 (s, 3H), 3.45 (s, 3H), 3.74 (s, 3H), 5.28 (s, 2H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.95 (dd, J =
1-712	8.4, 2.1 Hz, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.11 (d, J = 2.1 Hz, 1H), 7.53 (d, J = 8.7 Hz, 2H), 8.50 (brs, 1H), 8.60 (brs, 1H)
IR	IR (Nujol) 3207, 1611, 1589, 1523, 1489, 1460, 1227, 1116, 1072, 1014, 943, 822, 759 cm ⁻¹
- F	mp 231-233 C
=	III NMIR (CDCl ₃) δ 3.30 (e, 3H), 3.64 (ε, 3H), 5.28 (ε, 2H), 6.39 (ε, 1H), 6.67 (dd, J = 8.4, 2.1 Hz, 1H), 6.80 (d, J = 2.1 Hz,
1.713 IH	1H), 6.84 (d, J = 8.7 Hz, 2H), 7.01 (d, J = 8.4 Hz, 1H), 7.44 (d, J = 8.7 Hz, 2H), 8.64 (d, J = 2.4 Hz, 1H), 8.67 (dd, J = 2.4, 1.2
Hz	Hz, III), 8.94 (d, $J = 1.2$ Hz, 1H)
=======================================	IR (Nujol) 3369, 3164, 1612, 1600, 1585, 1522, 1493, 1385, 1255, 1118, 1073, 1013, 934, 824, 798, 778 cm ⁻¹
log	foam 'i
H ₁	1H NMR (CDCl ₃) δ 2.83 (8, 3H), 3.22 (8, 3H), 3.27 (8, 3H), 3.55 (8, 3H), 3.78 (8, 3H), 6.18 (8, 2H), 6.85 (8, 1H), 7.20 (d, J =
	8.4 Hz, 1H), 7.39 (d, J = 8.7 Hz, 2H), 7.40 (dd, J = 8.4, 2.1 Hz, 1H), 7.45 (d, J = 2.1 Hz, 1H), 7.67 (d, J = 8.7 Hz, 2H)
	IR (Nujol) 3264, 1650, 1607, 1517, 1480, 1175, 1150, 1078, 946, 876, 798 cm ⁻¹

Table 141

55

50	45	40	35	30	25	20	15	10 .	5
1.715		foam 4H NMR (CDCl ₃)	J. 2.77 (s, 3H), J = 8.7 Hz, 2H	3.21 (s, 3H), ; H), 7.38 (dd, J	8.24 (s, 3H), 3 = 8.4, 2.1 Hz,	.55 (s, 3H), 3.7 1H), 7.44 (d, 3	8 (s, 3H), 5.3t	foam 111 NMR (CDCl3) & 2.76 (s, 311), 2.77 (s, 311), 3.21 (s, 311), 3.24 (s, 311), 3.55 (s, 311), 3.78 (s, 311), 5.35 (s, 211), 6.84 (s, 111), 7.25 (d, J = 8.4 Hz, 111), 7.38 (d, J = 8.7 Hz, 211), 7.38 (dd, J = 8.4, 2.1 Hz, 111), 7.44 (d, J = 2.1 Hz, 111), 7.68 (d, J = 8.7 Hz, 211) 211)	H),
1.716	<u> </u>	mp 227-229 °C HI NMR (DMSO-da) δ 2.87 (a, 31b), 3.39 (a, 31b), 3.45 (a, 31b), 3.52 (a, 31b), 3.79 (a, 31b), 5.23 (a, 21b), 7.08 (a, 11b), 7.35 (dd, J = 8.4, 2.1 Hz, 11b), 7.44 (d, J = 8.4 Hz, 11b), 7.49 (d, J = 8.7 Hz, 2H), 7.74 (d, J = 8.7 Hz, 2H), 1160, 1320, 1463, 1174, 1160, 1079, 947, 879, 798 cm ⁻¹	31b), 3.39 (s, 3 2.1 Hz, 11b), 7.4 0. 1480, 1463.	11), 3.45 (s, 311) 44 (d, J = 8.4 F	i, 3.52 (s, 3H) iz, 1H), 7.49 (d, J = 8.7 Hz,	5.23 (s, 2H), 7 2H), 7.74 (d, J	mp 227-229 °C. **HI NMR (DMSO-da)	L',
1.717	m.p 180-181 ⁹ ¹ H NMR (CD 1.8, 8.4 Hz, 1 2H), 7.61 (d,	C OCI.) \$ 3.07 (s, 3H) H), 7.08 (d, J = 1.8 I J = 8.1 Hz, 1H)), 3.45 (s, 3H), Hz, 1H), 7.10	3.75 (s, 3H), (d, J= 8.4 Hz,	5.18 (s, 2H), (3.45 (s, 1H),6.9 = 7.2 Hz, 1H))2 (d, J= 8.7 F), 7.44 (m, 2H)	C OCl ₃) δ 3.07 (s, 3H), 3.45 (s, 3H), 3.75 (s, 3H), 5.18 (s, 2H), 6.45 (s, 1H), 6.92 (d, J= 8.7 Hz, 2H), 6.99 (dd, J= H), 7.08 (d, J= 1.8 Hz, 1H), 7.10 (d, J= 8.4 Hz, 1H), 7.25 (t, J= 7.2 Hz, 1H), 7.44 (m, 2H), 7.53 (d, J= 8.7 Hz, J= 8.1 Hz, 1H)	= 'z
1.718	foam 1H NMR (CDCl ₃) & 3.06 (9, 3H), 3.45(9, 3H), 3.74(9, 3H), 5.17 (8, 2H), 6.45 (8, 1H), 6.93 (d, J= 8.7 Hz, 2H), 6.98 (dd, J= 8. Hz, 1H), 7.08 (d, J= 2.1 Hz, 1H), 7.10 (d, J= 8.4 Hz, 1H), 7.24 (m, 1H), 7.43 (m, 2H), 7.51 (d, J= 8.7 Hz, 2H), 7.61 (m, 1H) 1R (KBr) 3430, 1611, 1590, 1623, 1490, 1402, 1323, 1242, 1149, 1112, 1070, 1010, 971, 826 cm ⁻¹) \$ 3.06 (s, 3H), J = 2.1 Hz, 1H), 611, 1590, 1523,	, 3.45(s, 3H), 3 7.10 (d, J = 8. 1490, 1402, 13	1,74(e, 3H), 5.1 4 Hz, 1H), 7.2 ^a 323, 1242, 114	7 (s, 2H), 6.48 4 (m, 1H), 7.4 19, 1112, 1070	5 (s, 1H), 6.93 (3 (m, 2H), 7.51	(d, J= 8.7 Hz, 1 (d, J= 8.7 Hz)	foam ¹ H NMR (CDCl ₃) δ 3.06 (9, 3H), 3.45(9, 3H), 3.74(9, 3H), 5.17 (9, 2H), 6.45 (8, 1H), 6.93 (d, J= 8.7 Hz, 2H), 6.98 (dd, J= 8.7 Hz, 1H), 7.08 (d, J= 2.1 Hz, 1H), 7.10 (d, J= 8.4 Hz, 1H), 7.24 (m, 1H), 7.43 (m, 2H), 7.51 (d, J= 8.7 Hz, 2H), 7.61 (m, 1H) R (KBr) 3430, 1611, 1590, 1623, 1490, 1402, 1323, 1242, 1149, 1112, 1070, 1010, 971, 826 cm ⁻¹	7:0
I.719	foam IH NMR (CDCl ₃)	δ 2.80 (s, 6H), J = 8.7 Hz, 1H), 311, 1586, 1522,	, 3.47 (s, 3H), 7.20 (d, J = 7.5	3.76 (8, 3H), 5. 2 Hz, 1H), 7.3 ²	08 (s 2H), 6.4 4-7.45 (m, 3H) 9, 1011, 940,	6 (s, 1H), 6.92), 7.55 (d, J = 8 824, 767 cm ⁻¹	(d, J= 8.7 Hz, 8.7 Hz, 2H)	foam 1H NMR (CDCl ₃)	=

Table 142

1.720	foam 111 NMR (CDCh) & 1.52 (s, 911), 2.67 (s, 311), 3.19 (s, 311), 3.21 (s, 311), 3.56 (s, 31), 3.78 (s, 311), 5.17 (s, 211), 6.54 (br.s, 111), 7.11 (m, 111), 7.12 (d, J = 9.0 Hz, 111), 7.25 (m, 111), 7.30 (d, J = 7.5 Hz, 111), 7.32 (dd, J = 1.8, 9.0 Hz, 111), 7.36 (d, J = 8.7 Hz, 211), 7.41 (d, J = 1.8 Hz, 111), 7.60 (s, 111), 7.67 (d, J = 8.7 Hz, 211) 11 (KBr) 1724, 1610, 1520, 1481, 1366, 1234, 1177, 1153, 1079, 969, 875, 797 cm ⁻¹
1.721	m.p 187-191 °C 111 NMR (C.DCL ₃) δ 2.66 (a, 3H), 3.17 (a, 3H), 3.21 (a, 3H), 3.55 (a, 3H), 3.78 (a, 3H), 5.11 (a, 2H), 6.65 (d, J = 8.4 Hz, 1H), 6.81 (m, 2H), 6.84 (a, 1H), 7.12 (d, J = 8.7 Hz, 1H), 7.17 (t, J = 8.7 Hz, 1H), 7.32 (dd, J = 2.1, 8.7 Hz, 1H), 7.37 (d, J = 8.7 Hz, 2H), 2H), 7.40 (d, J = 2.1 Hz, 1H), 7.67 (d, J = 8.7 Hz, 2H) 1R (KBr) 1624, 1606, 1519, 1481, 1361, 1176, 1148, 1081, 980, 876, 780 cm. ¹
1.722	m.p 143·146 °C 111 NMR (CDCl ₃)
1.723	foam 111 NMR (CI)Cl ₃)

Table 143

	45	40	35	30	25	20	15	10	5
-724	foam 111 NMR (CDCh ₃)	δ 2.74 (s, 3l) γ, 1H), 7.36 (dt, 7.67 (d, J = 8.5 233, 1481, 1353), 3.18 (s, 3H), J = 2.1, 8.4 Hz 7 Hz, 2H)	3.21 (8, 311), 3 2, 1H), 7.37 (m,	13 (s, 6H), 3.5 HH), 7.39 (d, J m ⁻¹	6 (s, 3H), 3.78 (= 8.7 Hz, 2H),	s, 3H), 5.24 (s, 7.40 (d, J = 2.1	, 2H), 6.84 (s, 1F Hz, 1H), 7.61 (r	cî î
1.725	m.p 147-150 °C; 111 NMR (CDCl ₃) \$\tilde{a}\$ 2.79 (s, 31j), 2.83 (s, 31l), 3.20 (s, 31l), 3.21 (s, 31l), 3.35 (s, 31l), 3.55 (s, 31l), 3.78 (s, 31l), 5.22 (s, 21l), 6.85 (s, 11l), 7.11 (d, J = 8.7 Hz, 11l), 7.32-7.46 (m, 71l), 7.62 (s, 11l), 7.67 (d, J = 8.4 Hz, 21l) 111 (KBr) 1608, 1518, 1480, 1364, 1178, 1163, 1077, 968, 795 cm.\(\text{1} \)	δ 2.79 (s, 31) (d, J = 8.7 Hz, 518, 1480, 1364), 2.83 (s, 31l), 1H), 7.32-7.46 1, 1178, 1153, 1	3.20 (s, 311), 3.5 (m, 711), 7.62 (s	21 (s, 3H), 3.3 s, 1H), 7.67 (d, m ⁻¹	6 (s, 3H), 3.55 (, J = 8.4 Hz, 2H	s, 3H), 3.78 (s,	3H), 6.22 (s, 2H	جَ ا
1-726	m.p 224-226 °C 1H NMR (CIDCL ₃)	δ 2.85 (s, 3F (d, J = 8.1 Hz, z, 2H) 319, 1480, 1360	l), 2.91 (s, 6H), 1H), 6.89 (s, 1F 3, 1178, 114 <u>6,</u> 1	3.36 (s, 3H), 3. 1), 7.07 (s, 1H), (081, 879, 826 c	45 (s, 3H), 3.E 7.20 (t, J = 8	1 (e, 3H), 3.78 1 Hz, 1H), 7.30	(a, 3H), 5.19 (g m, 3H), 7.48 (a, 2H), 6.69 (d, J d, J = 8.7 Hz, 2H	" <u>c</u>
-727	fonm 1H NMR (CDCl ₃)	ô 2.82 (s, 3F (d, J = 4.8 Hz, 177, 1609, 1519	I), 3.18 (s. 6H), IH), 7.30-7.47 9, 1481, 1364, 1	3.21 (s, 311), 3. (m, 811), 7.76 (c	53 (s, 3H), 3.7 I, J = 8.7 Hz, 3 0, 1079, 876, 7	'6 (s, 3H), 5.17 2H) 99 cm ⁻¹	(s, 2H), 6.84 (s	, 1H), 7.11 (d, J	11
-728	foam 1H NMR (CDCl3) & 3.45 (s, 3H), 3.75 (s, 3H), 5.06 (s, 2H), 6.45 (s, 1H), 6.68 (d, J = 7.5 Hz, 1H), 6.77 (s, 1H), 6.82 (d, J = 7.5 Hz, 1H), 6.91 (d, J = 8.7 Hz, 2H), 6.93 (dd, J = 1.8, 8.4 Hz, 1H), 6.99 (d, J = 8.4 Hz, 1H), 7.07 (d, J = 1.8 Hz, 1H), 7.19 (t, J = 7.5 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) 7.5 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) 1R (KBr) 3413, 1611, 1622, 1488, 1461, 1405, 1251, 1119, 1076, 1007, 813, 784 cm ⁻¹	6 3.45 (s, 3H) J = 8.7 Hz, 2H) (d, J = 8.7 Hz,), 3.75 (s, 3H), , 6.93 (dd, J = 2H)	5.06 (s, 2H), 6.4 1.8, 8.4 Hz, 1H) 251, 1119, 1070	5 (s, 1H), 6.68 , 6.99 (d, J = 8 3, 1007, 813, 7	(d, J = 7.5 Hz, 3.4 Hz, 1H), 7.0 84 cm ⁻¹	1H), 6.77 (e, 1l) 7 (d, J = 1.8 H;	H), 6.82 (d, J = 7 z, 1H), 7.19 (t, J	ró II

Table 144

	m.p 90-93 °C
	111 NMR (CDCl ₃) δ 3.01 (s, 311), 3.45 (s, 311), 3.75 (s, 311), 5.16 (s, 211), 6.45 (s, 114), 6.81 (s, 114), 6.92 (d, J = 8.7 Hz, 2H),
62/-1	6.95 (d, J = 1.8 Hz, 1H), 6.96 (m, 2H), 7.24 (m, 2H), 7.40 (t, J = 7.2 Hz, 1H), 7.52 (d, J = 8.7 Hz, 2H)
	IR (KBr) 3434, 1612, 1592, 1623, 1489, 1325, 1248, 1224, 1147, 1113, 1070, 1010, 972 cm ⁻¹
	mp 79-81 °C
	111 NMR (CDCE) & 2.34 (s, 6H), 3.48 (s, 3H), 3.76 (s, 3H), 4.72 (brs, 1H), 5.16 (s, 2H), 5.68 (brs, 1H), 5.93 (brs, 1H), 6.44
08.2-1	(s, 111), 6.99-7.10 (m, 311), 7.26-7.49 (m, 711)
	IR(KBr) 3467, 2933, 1613, 1701, 1517, 1482, 1454, 1424, 1389, 1321, 1196, 1148, 1113, 1073 cm ⁻¹
	mp189-191 C
	1H NMR (CDCl.) 5 3.20 (s, 3H), 3.81 (s, 6H), 5.14 (s, 2H), 5.65 (brs, 1H), 6.79 (s, 2H), 6.79-7.02 (m, 5H), 7.36-7.46 (m,
1:731	6H), 7.66 (d, J = 8.6 Hz, 2H)
	IR(KBr) 3439, 2937, 1594, 1567, 1523, 1487, 1351, 1240, 1202, 1146, 1126, 874 cm ⁻¹
	mp196-197 C
	1H NMR (DMSO-d6) 6 3.32 (8, 3H), 3.43 (8, 6H), 3.79 (8, 6H), 5.24 (8, 2H), 7.00 (8, 2H), 7.23-7.30 (m, 3H), 7.35-7.55 (m,
1-732	7H), 7.88 (d, J = 8.4 Hz, 2H)
	IR(KBr) 3434, 1602, 1561, 1523, 1485, 1362, 1288, 1238, 1201, 1181, 1148, 1126, 1115, 966, 914, 813 cm ⁻¹
	mp202.203 C
	1H NMR (DMSO-dg) 8 2.40 (s, 6H), 3.31 (s, 3H), 3.34 (s, 3H), 3.51 (s, 3H), 3.58 (s, 3H), 3.77 (s, 3H), 5.27 (s, 2H), 7.03 (s,
1.733	1H), 7.32-7.530 (m, 10H)
	IR(KBr) 3434, 3028, 2944, 1515, 1475, 1463, 1361, 1290, 1272, 1247, 1179, 1085, 967, 815, 804 cm ⁻¹

Table 145

-734	mp140-141 °C IH NMR (CDCl ₃₎ & 1.77 (s, 3H), 1.82 (s. 3H), 3.21 (s, 3H), 3.83 (s, 6H), 4.63 (d, J = 4.6 Hz, 2H), 5.52-5.53 (m, 1H), 6.79 (s, 2H), 7.05 (d, J = 8.8 Hz, 1H), 7.29-7.42 (m, 4H), 7.67 (d, J = 8.6 Hz, 2H)
-7:16	mp 168-169 ℃ HI NMR (CDCh) δ 2.38 (8, 311), 3.09 (8, 311), 3.20 (8, 311), 3.81 (8, 611), 5.11 (8, 211), 6.78 (8, 211), 713-7.42 (m, 911), 7.66 (d = 8.8 Hz, 211) HKRB) 3433, 1601, 1666, 1486, 1367, 1246, 1182, 1153, 1114, 973, 869, 824 cm ⁻¹
.736	mp192·194 °C 111 NMR (CDCL ₃)
-737	mp224-225 °C III NMR (CDCl ₃)
.738	mp203·204 °C ¹ H NMR (CDCl ₃) δ 1.76 (s, 3H), 1.82 (s. 3H), 2.46 (s, 6H), 2.45·2.58 (m, 2H), 2.73 (s, 3H), 3.22 (s, 3H), 3.35 (s, 3H), 3.55 (s, 3H), 3.77 (s, 3H), 4.07 (d, J = 6.6 Hz, 2H), 5.18·5.25 (m, 1H), 6.82 (s, 1H), 7.07 (d, J = 8.2 Hz, 1H), 7.32·7.39 (m, 4H) ¹ R(KBr) 3434, 2941, 1519, 1473, 1359, 1276, 1178, 1114, 1085, 967, 860, 811 cm ⁻¹
	IR(RBF) 3434, 2341, 1013, 1473, 1003, 1270, 1110, 1114, 1003, 301, 000, 011 cm

Table 146

. 10

	тр158-159 °C
-	1H NMR (DMSO-da) & 1.72 (8, 3H), 1.76 (8, 3H), 3.72 (8, 6H), 4.54 (d, J = 6.0 Hz, 2H), 5.45-5.52 (m, 1H), 6.55-6.59 (m, 2H),
1.739	6.84-6.90 (m, 5H), 7.57 (d, J = 8.2 Hz, 2H), 8.70 (brs, 1H), 9.53 (brs, 1H)
	IR(KBr) 3465, 2932, 1610, 1523, 1487, 1460, 1283, 1281, 1123, 1010, 819 cm ⁻¹
	mp180-181 C
	1H NMR (CDCh) 6 2.32 (8, 3H), 3.72 (8, 6H), 5.08 (8, 2H), 6.54-6.58 (m, 1H), 6.68 (6, 1H), 6.85-6.95 (m, 5H), 7.21 (d, J = 1.11)
1-740	7.6 Hz, 2H), 7.39 (d, J = 7.8 Hz, 2H), 7.57 (d, J = 8.4 Hz, 2H), 8.83 (bre, 1H), 9.54 (bre, 1H)
	IR(KBr) 3519, 2937, 1607, 1562, 1523, 1461, 1400, 1246, 1176, 1125, 1003, 821 cm ⁻¹
	mp105-106 °C
;	1H NMR (CDCl3) 6 2.13 (s, 6H), 3.17 (s, 3H), 5.16 (s, 2H), 5.85 (brs, 1H), 6.61-6.66 (m, 1H), 6.77 (s, 1H), 7.01 (d, J = 8.2
1-7/41	Hz, 1H), $7.25.7.46$ (m, 9H), 7.65 (d, $J = 8.8$ Hz, 2H)
	IR(KBr) 3466, 3031, 2934, 1585, 1513, 1476, 1366, 1285, 1198, 1175, 1148, 1127, 1014, 968, 868, 840 cm ⁻¹
	mp92.93 °C
	111 NMR (1)MSO-d ₆) δ 1.74 (8, 311), 1.78 (8, 311), 2.24 (8, 611), 3.31 (8, 3H), 3.65 (8, 3H), 4.56 (d, J = 6.8 Hz, 2H), 5.52 (t, J = 1.11 NMR (1)MSO-d ₆)
I-742	6.0 Hz, 1H), 6.37 (s, 1H), 6.64-6.76 (m, 2H), 6.88-6.93 (m, 1H), 7.16-7.20 (m, 2H), 8.31 (brs, 1H), 8.45 (brs, 1H), 8.73 (brs,
	1H).
	1R(KHr) 3443, 2932, 1707, 1613, 1516, 1484, 1462, 1387, 1280, 1243, 1196, 1114, 1074, 979 cm ⁻¹
	mp180-181 ℃
	1H NMR (DMSO-ds) 6 2.22 (8, 6H), 2.32 (8, 3H), 3.29 (8, 3H), 3.63 (8, 3H), 5.08 (8, 2H), 6.61-6.65 (m, 1H), 6.75 (8, 1H), 6.93
1-743	(d, J = 8.2 Hz, 1H), 7.13-7.22 (m, 4H), 7.39 (d, J = 7.4 Hz, 2H), 8.30 (brs, 1H), 8.44 (brs, 1H), 8.84 (brs, 1H)
	IR(KBr) 3443, 2930, 1686, 1614, 1587, 1518, 14863, 1462, 1385, 1281, 1246, 1197, 1113, 1073, 1009, 806 cm ⁻¹

Table 147

55

50	45	40	35	30	25	20		15	10	5
1-744	mp 123-12/ III NMR (1 2H), 5.22-6 IR(KBr) 34	d ₆) & 1.65 (s 111), 6.36 (s,	, 3H), 1.71 (s, 1H), 6.65-6.88	3H), 2.23 (s, (m, 3H), 7.16	6H), 2.36-2.4 (s, 1H), 8.30 48, 1198, 11	61 (m, 2H, (brs, 111), 13, 1074.), 3.31 (s, 8.44 (brs	3H), 3.64 (s.	1 T. DMSO-da) & 1.65 (s, 3H), 1.71 (s, 3H), 2.23 (s, 6H), 2.36-2.51 (m, 2H), 3.31 (s, 3H), 3.64 (s, 3H), 3.91-3.98 (m, 5.28 (m, 1H), 6.36 (s, 1H), 6.65-6.88 (m, 3H), 7.16 (s, 1H), 8.30 (brs, 1H), 8.44 (brs, 1H), 8.70 (brs, 1H) 144, 2930, 1686, 1613, 1518, 1483, 1390, 1283, 1248, 1198, 1113, 1074, 1013 cm ⁻¹	É
1.745		6 1.77-1.78 (D, 4.64-4.67 (7.55-7.60 (m,	d, J = 0.9 Hz, d, J = 6.9 Hz, 2H) 80, 1371, 133	3H), 1.82-1.8; 2H), 5.51 (m	3 (d, J = 0.9 , 111), 6.86 (Hz, 3H), 2 8, 1H), 7.0	.74 (8, 3H) 19 (d, J =	8.4 Hz, 1H), 1849 cm ⁻¹	I), 3.25 (s, 3H), 3	.57 H),
1.746	INP 134-136 °C 14 NMR (CDCla) 6 1.69 (s, 3H), 1.75 (s, 3H), 2.53-2.60 (dt, J = 6.6, 5.7 Hz, 2H), 2.73 (s, 3H), 3.18 (s, 3H), 3.23 (s, 3H), 3.66 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-746 1-7	6 1.69 (s, 3H 1), 4.07-4.11 (7.55-7.61 (m, 614, 1519, 148	t, J = 5.7 Hz, 2H)	2.53-2.60 (dt, 2H), 5.22 (m,	J = 6.6, 5.7 1H), 6.86 (¢ 1228, 1176,	Hz, 2H), 2 3, 1H), 7.0	73 (s, 3H) 7 (d, J = 1) 9, 1083, 10), 3.18 (s, 3H 9.0 Hz, 1H), 004, 970, 870	3 °C (3) °C (4) °C (5) °C (7) °C (8) °C (8) °C (9) °C (9) °C (9) °C (10) °C (1	99 F),
1-747	mp 182-183 °C ¹ H NMR (CDCl ₃) δ 2.26 (s, 3H), 2.28 (s, 3H), 4.74 (s, 1H), 5.16 (s, 2H), 5.69 (s, 1H), 6.81-6.89 (m, 3H), 6.96-6.99 (m, 2H), 7.10-7.12 (d, J = 4.8 Hz, 2H), 7.23-7.26 (m, 2H), 7.39-7.45 (m, 5H) IR (CHCl ₃) 3597, 3543, 2924, 2871, 1611, 1587, 1522, 1490, 1455, 1382, 1171, 1126, 1012, 836 cm ⁻¹	3 °C (a, 216 (a, 3H), 2.28 (a, 3H), 4.74 (a, 1H), 5.16 (a, 2H), 5.69 (a, 1H), 6.81-6.89 (m, 1, J = 4.8 Hz, 2H), 7.23-7.26 (m, 2H), 7.39-7.45 (m, 5H) (m, 5H) (m, 2924, 2871, 1611, 1587, 1522, 1490, 1465, 1382, 1171, 1126, 1012, 836 cm ⁻¹), 2.28 (s, 3H), 3-7.26 (m, 2H) 71, 1611, 1687	, 4.74 (s, 1H),), 7.39-7.45 (m	5.16 (s, 2H), ,, 5H) 1455, 1382,	, 5.69 (s, 1	H), 6.81-6	36 cm ⁻¹	6.96-6.99 (m, 21	,
1.748	mp 158-161 °C ¹ H NMR (CDCl ₃) ° 2.38 (s, 3H), 2.74 (s, 3H), 3.12 (s, 3H), 3.18 (s, 3H), 3.57 (s, 3H), 3.78 (s, 3H), 5.15 (s, 2H), 6.86 (s, 1H), 7.16 (d, J = 8.7 Hz, 1H), 7.21-7.24 (d, J = 7.8 Hz, 1H), 7.35-7.40 (m, 5H), 7.45-7.49 (m, 2H), 7.62-7.62 (m, 2H) ¹ R (CHCl ₃) 2939, 1732, 1614, 1519, 1480, 1331, 1294, 1253, 1176, 1150, 1119, 1082, 1003, 970, 869, 816 cm ⁻¹	°C DCl ₃) δ 2.38 (8, 3H), 2.74 (8, 3H), 3.12 (8, 3H), 3.18 (8, 3H), 3.57 (8, 3H), 3.78 (8, 3H), 5.15 (8, 2H 8.7 Hz, 1H), 7.21-7.24 (d, J = 7.8 Hz, 1H), 7.35-7.40 (m, 5H), 7.45-7.49 (m, 2H), 7.52-7.62 (m, 2H) 2939, 1732, 1614, 1519, 1480, 1331, 1294, 1253, 1176, 1150, 1119, 1082, 1003, 970, 869, 816 cm	1, 2.74 (s, 3H), 4 (d, J = 7.8 H 19, 1480, 1331	3.12 (s, 3H), ; z, 1H), 7.35-7, , 1294, 1263,	3.18 (s, 3H), 40 (m, 5H), 1176, 1150,	3.57 (e, 3F 7.45-7.49 (I), 3.78 (e ₁ (m, 2H), 7 82, 1003, 9	, 3H), 5.15 (8 .52.7.62 (m, 970, 869, 816	2H), 6.86 (s, 1H 2H) 6 cm.1	÷.

Table 148

	(b) (20. FB)
	mp 1/4-1/0 C
	¹ H NMR (CDCl ₃) 6 1.75 (8, 3H), 1.79 (8, 3H), 2.58 (8, 3H), 3.52 (8, 3H), 3.53 (8, 3H), 3.78 (8, 3H), 4.62 (d, J = 6.9 Hz, 2H),
1.749	5.48-5.55 (m, 1H), 6.83 (s, 1H), 6.99 (d, J = 8.7 Hz, 1H), 7.09 (dd, J = 1.8, 8.1 Hz, 1H), 7.11-7.19 (m, 2H), 7.22 (d, J = 1.8 Hz,
	1H), 7.57-7.65 (m, 2H)
	IR (KBr) 2932, 1602, 1519, 1485, 1385, 1368, 1174, 1086, 1015, 986, 848, 804, 527 cm ⁻¹
	mp 129-131 °C
	111 NMR (CDCL ₃) & 1.75 (8, 3H), 1.79 (8, 3H), 3.45 (8, 3H), 3.53 (8, 3H), 3.75 (8, 3H), 4.62 (d, J = 6.6 Hz, 2H), 5.24 (8, 2H),
1.750	5.50-5.58 (m, 1H), 5.90 (s, 1H), 6.44 (s, 1H), 6.99 (d, J = 8.7 Hz, 1H), 7.08-7.18 (m, 3H), 7.29 (d, J = 1.8 Hz, 1H), 7.58-7.64 (m,
	2H)
	IR (KBr) 3361, 2953, 2934, 1522, 1488, 1460, 1391, 1230, 1154, 1121, 1071, 993, 912, 817, 587 cm ⁻¹
	mp 148-150 ℃
	1H NMR (CDCl ₃) & 1.68 (s, 3H), 1.74 (s, 3H), 2.51.2.60 (m, 5H), 3.53 (s, 6H), 3.77 (s, 3H), 4.02 (t, J = 7.2 Hz, 2H), 5.19
1-751	5.25 (m, 3H), 6.83 (s, 1H), 6.98 (d, J = 8.4 Hz, 1H), 7.08 (dd, J = 2.1, 8.4 Hz, 1H), 7.11·7.18 (m, 2H), 7.21(d, J = 2.1 Hz, 1H),
	7.57.7.64 (m, 2H)
	IR (KBr) 2931, 1603, 1519, 1484, 1386, 1370, 1231, 1175, 1086, 1015, 983, 961, 847, 728, 526 cm ⁻¹
	mp 99-101 ℃
	1H NMR (CDCl ₃) δ 1.68 (s, 3H), 1.73 (s, 3H), 2.55 (q, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54, (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54 (s, 3H), 3.75 (s, 3H), 4.04 (t, J = 7.2 Hz, 2H), 3.44 (s, 3H), 3.54 (s, 3H), 3.75 (s, 3H), 4.04 (s, 3H)
1.752	1-752 Hz, 2H), 5.20-5.25 (m, 3H), 5.89 (s, 1H), 6.44 (s, 1H), 6.98 (d, J = 8.1 Hz, 1H), 7.09-7.18 (m, 3H), 7.26-7.27 (m, 1H), 7.58-7.63
	(m, 2H)
	IR (KBr) 3349, 2930, 1609, 1523, 1489, 1231, 1152, 1121, 1072, 994, 912, 813, 588 cm ⁻¹

Table 149

55

50	45	40	35	30	25	20	15	10	5
1.753	mp 115-117 °C. 111 NMR (CDC3,) \$\delta\$ 1.69 (s, 311), 1.75 (s, 311), 2.53 (q, J = 6.9 Hz, 211), 2.62 (s, 311), 3.53 (s, 311), 3.77 (s, 311), 4.06 (t, J = 6.9 Hz, 211), 5.18-5.25 (m, 111), 5.70 (s, 111), 6.83 (s, 111), 6.89-6.95 (m, 211), 7.02 (d, J = 1.2 Hz, 111), 7.10-7.18 (m, 211), 7.57-7.65 (m, 211) (m, 211) 118 (KBr) 33545, 2931, 1604, 1520, 1485, 1370, 1249, 1232, 1175, 1084, 1012, 813, 526 cm ⁻¹	5 1.69 (s, 3H), 5 (m, 1H), 5.70 (s	1.75 (s, 3H), , 1H), 6.83 (s, 1485, 1370, 13	2.53 (q, J = 6.9 , 111), 6.89-6.95 249, 1232, 1178	Hz, 2H), 2.62 (m, 2H), 7.02	(s, 3H), 3.53 (s, (d, J = 1.2 Hz, 813.526 cm. ¹	3H), 3.77 (6, 3	3H), 4.06 (t, J = (6.9
1.764	¹ H NMR (CDCl ₃)	δ 1.14 (t, J = 6.), 5.18 (s, 211), 5.7.48 (m, 711), 7.6.2976, 1586, 1516	.9 Hz, 3H), 1. 68 (s, 1H), 6.1 6-7.74 (m, 21 3, 1468, 1369,	29 (t, J = 6.9 H 83 (s, 111), 6.91 1) 1282, 1174, 11	z, 3H), 2.50 (a (dd, J = 1.8, 8	6, 967, 907, 87	H), 3.71 (q, J: 0 (d, J:= 8.4 H	= 6.9 Hz, 2H), 4.0	8 "
1.755	amorphous powder 1H NMR (CDCl3)	er ô 1.15 (t, J = 6. H), 5.64 (s, 1H), 11.	.9 Hz, 3H), 1. 5.98 (s, 1H), , 1383, 1169,	28 (t, J = 6.9 H 6.45 (s, 1H), 6. 1116, 1064, 10	(z, 3H), 3.59 (c) 86-6.94 (m, 2l) 18, 832 cm.	H, J = 6.9 Hz, 2l	H), 3.97 (q, J = n, 2H), 7.12 (c	= 6.9 Hz, 2H), 4.8	8 6
1-756	mp 126-129 °C ¹ H NMR (CDCl ₃) δ 1.14 (t, J = 6.9 Hz, 3H), 1.30 (t, J = 6.9 Hz, 3H), 1.76 (s, 3H), 1.81 (s, 3H), 2.69 (s, 3H), 3.20 (s, 3H), ^{3.23} (s, 3H), 3.72 (q, J = 6.9 Hz, 2H), 4.00 (q, J = 6.9 Hz, 2H), 4.64 (d, J = 6.6 Hz, 2H), 5.49 (m, 1H), 6.84 (s, 1H), 7.08 (d, J = 8.7 Hz, 1H), 7.32-7.42 (m, 4H), 7.56-7.72 (m, 2H) ^{8.7} Hz, 1H), 7.32-7.42 (m, 4H), 7.56-7.72 (m, 2H) ¹⁸ (CHCl ₃) 1609, 1516, 1467, 1369, 1267, 1229, 1175, 1148, 1115, 1069, 968, 907, 871 cm. ¹	6 1.14 (t, J = 6 (q, J = 6.9 Hz, 2H 7.42 (m, 4H), 7.50	5.9 Hz, 3H), 1 l), 4.00 (q, J = 6-7.72 (m, 2H	30 (t, J = 6.9] : 6.9 Hz, 2H), 4	Hz, 3H), 1.76 .64 (d, J = 6.6 15, 1069, 968,	(s, 3H), 1.81 (s Hz, 2H), 5.49 (, 3H), 2.69 (s, m, 1H), 6.84 (3H), 3.20 (s, 3H s, 1H), 7.08 (d, J	6 1

Table 150

1-757	mp 123-135 °C (dec.) HI NMR (CDCL3) & 1.14 (t, J = 6.9 Hz, 3H), 1.29 (t, J = 6.9 Hz, 3H), 2.37 (s, 3H), 2.64 (s, 3H), 3.12 (s, 3H), 3.20 (s, 3H), 3.71 (q, J = 6.9 Hz, 2H), 4.00 (q, J = 6.9 Hz, 2H), 5.14 (s, 2H), 6.83 (s, 1H), 7.14 (d, J = 8.7 Hz, 1H), 7.18-7.24 (m, 2H), 7.31- 7.40 (m, 5H), 7.41 (d, J = 2.1 Hz, 1H), 7.65-7.72 (m, 2H) HR (CHCL3) 1607, 1517, 1467, 1369, 1330, 1268, 1175, 1148, 1116, 1069, 1026, 967, 907, 871 cm ⁻¹
1.758	amorphous powder [1] MR (CDCl3) & 1.15 (t, J = 6.9 Hz, 3H), 1.28 (t, J = 6.9 Hz, 3H), 1.76 (e, 3H), 1.82 (d, J = 0.6 Hz, 3H), 3.59 (q, J = 6.9 Hz, 2H), 4.61 (d, J = 6.9 Hz, 2H), 4.87 (e, 1H), 5.53 (m, 1H), 5.66 (e, 1H), 5.97 (e, 1H), 6.45 (e, 1H), 6.86.7.00 (m, 4H), 7.09 (d, J = 1.8 Hz, 1H), 7.50-7.57 (m, 2H) [R. (CHCl3) 3528, 2978, 1611, 1521, 1487, 1412, 1383, 1168, 1115, 1064, 905, 831 cm ⁻¹]
692-1	nmorphous powder 1H NMR (CDCl ₃) δ 1.15 (t, J = 6.9 Hz, 3H), 1.27 (t, J = 6.9 Hz, 3H), 2.39 (s, 3H), 3.59 (q, J = 6.9 Hz, 2H), 3.97 (q, J = 6.9 Hz, 2H), 4.88 (s, 1H), 5.10 (s, 2H), 5.64 (s, 1H), 5.97 (s, 1H), 6.45 (s, 1H), 6.97-7.01 (m, 2H), 7.11 (d, J = 1.5 Hz, 1H), 7.20-7.26 (m, 2H), 7.32-7.37 (m, 2H), 7.50-7.66 (m, 2H) 1R (CHCl ₃) 3526, 2974, 1612, 1620, 1488, 1412, 1383, 1286, 1116, 1065, 1027, 870 cm ⁻¹
1.760	mp 169-171 °C ¹ H NMR (CDCl ₃)

Table 151

	mp 175-177 C
į	11 NMR (DMSO-da) & 1.70 (s, 611), 3.67-3.73 (m, 211), 3.71 (s, 3H), 3.72 (s, 311), 4.59 (br , 1H), 5.27-5.31 (m, 1H), 6.50 (d,
192-1	J = 8.1 Hz, 1H), 6.77-6.95 (m, 6H), 7.34-7.40 (m, 2H), 9.23 (br s, 1H), 9.42 (br s, 1H)
	IR (KBr) 3600-2400(br), 1609, 1522, 1492, 1463, 1384, 1263, 1208, 1174, 1129, 1055, 1033 cm
	mp 151-153 C
	111 NMR (CDCl ₃) δ 1.78 (s, 3H), 1.85 (s, 3H), 3.78 (s, 3H), 3.80 (s, 3H), 4.72 (d, $J = 6.9$ Hz, 2H), 5.39-5.44 (m, 1H), 6.53 (d,
1.762	J = 3.0 Hz, 111), 6.95 (s, 111), 7.05 (s, 111), 7.09-7.16 (m, 311), 7.38 (d, J = 8.7 Hz, 1H), 7.45 (dd, J = 1.8, 8.7 Hz, 1H), 7.54-7.60
	(m, 2H), 7.80 (d, J = 1.8 Hz, 1H),
	IR (KBr) 3600-2800(br), 1509, 1496, 1481, 1462, 1447, 1383, 1207, 1158, 1051 cm ⁻¹
	mp 138-139 ℃
	¹ H NMR (CDCl ₃) δ 3.78 (s, 3H), 3.79 (s, 3H), 6.64 (dd, J = 0.9, 2.7 Hz, 1H), 6.80 (d, J = 7.8 Hz, 1H), 6.94 (s, 1H), 7.04 (s,
1.763	1H), 7.09-7.21 (m, 3H), 7.25-7.27 (m, 1H), 7.32 (d, J = 8.7 Hz, 1H), 7.42 (dd, J = 1.8, 8.4 Hz, 1H), 7.53-7.59 (m, 3H), 8.60-
	8.63 (m, 1H)
	IR (KBr) 3600-2800(br), 1590, 1510, 1497, 1478, 1430, 1384, 1209, 1158, 1053, 1026 cm ⁻¹
	mp 172-174 ℃
707	¹ H NMR (CDCl ₃) δ 2.32 (8, 3H), 3.78 (s, 3H), 3.79 (s, 3H), 5.30 (s, 2H), 6.59 (d, J = 3.3 Hz, 1H), 6.94 (e, 1H), 7.04 (s, 1H),
¥0/:	7.04-7.15 (m, 7H), 7.34 (d, J = 8.4 Hz, 1H), 7.41 (dd, J = 1.8, 8.7 Hz, 1H), 7.55-7.59 (m, 2H), 7.82-7.83 (m, 1H)
	IR (KBr) 3600-2800(br), 1516, 1497, 1482, 1466, 1382, 1306, 1219, 1209, 1159, 1051, 1026 cm ⁻¹
	mp 134-136 °C
1 765	¹ H NMR (DMSO-d ₆) δ 1.70 (s, 3H), 1.71 (s, 3H), 3.72-3.74 (m, 2H), 3.73 (s, 3H), 3.74 (s, 3H), 5.25 (br s, 1H), 5.50-5.58 (m,
207:1	1H), 6.66-6.72 (m, 1H), 6.78-6.83 (m, 1H), 6.92 (s, 3H), 6.95 (s, 3H), 7.19-7.29 (m, 2H), 7.30-7.39 (m, 2H), 9.46 (br s, 3H),
	IR (KBr) 3600-2800(br), 1624, 1610, 1526, 1494, 1461, 1382, 1255, 1208, 1175, 1120, 1054, 1031 cm ⁻¹

Table 152

	mp 166-168 C
ç t	111 NMR (CDCh3) & 2.40 (s, 311), 3.77 (s, 611), 4.82 (s, 111), 6.71 (d, J = 2.4 Hz, 111), 6.86-6.93 (m, 4H), 7.22-7.32 (m, 4H),
99):	7.43-7.48 (m, 2H), 7.58-7.64 (m, 1H), 7.71-7.75 (m, 2H)
	HR (KBr) 3600-2800(hr), 1611, 1524, 1492, 1382, 1336, 1265, 1209, 1162, 1090, 1053, 1030 cm ⁻¹
	mp 139-140 ℃
	¹ H NMR (CDCL ₃) δ 3.78 (s, 3H), 3.80 (s, 3H), 6.60-6.62 (m, 1H), 6.95 (s, 1H), 7.05 (s, 1H), m), 7.08-7.16 (m, 2H), 7.23-7.26
) () · ·	(m, 111), 7.45 (d, J = 1.2 Hz, 211), 7.54-7.61 (m, 211), 7.83 (d, J = 0.6 Hz, 111), 8.18 (br s, 1H)
	IR (KBr) 3600-2800(br), 1520, 1497, 1465, 1448, 1414, 1383, 1313, 1218, 1205, 1159, 1048, 1024 cm-1
	1H NMR (CDCl.) 6 2.26 (s, 3H), 3.48 (s, 3H), 3.75 (s, 3H), 5.16 (s, 2H), 5.69 (s, 1H), 5.89 (s, 1H), 6.45 (s, 1H), 6.94 (d.d, J=
1.768	1.768 8.4 & 2.1Hz, 111), 7.02 (d, J = 8.4Hz, 1H), 7.08 (d, J = 2.1Hz, 1H), 7.35 · 7.50 (m, 8H), 8.36 · 8.44 (m, 1H)
	IR (KBr) 3384, 1592, 1525, 1487, 1455, 1397, 1312, 1250, 1122, 1102, 1069, 1011cm ⁻¹
	1H NMR (CDCl.1) 6 2.26 (s, 3H), 2.68 (s, 3H), 3.13 (s, 3H), 3.56 (s, 3H), 3.78 (s, 3H), 5.19 (s, 2H), 6.84 (s, 1H), 7.15 (d, J=
1.769	8.4 Hz, 1H), 7.30 · 7.51 (m, 10H), 8.37 · 8.47 (m, 1H)
	IR (KBr)3384, 1704, 1590, 1524, 1481, 1389, 1357, 1272, 1240, 1174, 1114, 1082,1017cm.
	1H NMR (CDCl3) 6 2.67 (s, 3H), 2.84 (s, 3H), 3.28 (s, 3H), 3.56 (s, 3H), 3.78 (s, 3H), 6.26 (s, 1H), 6.85 (s, 1H), 7.17 (d, J=
1.770	1.770 9.0 Hz, 1H), 7.24 · 7.33 (m, 2H), 7.35 · 7.50 (m, 3H), 8.37 · 8.50 (m, 1H)
	IR (KBr)3383, 1674, 1595, 1526, 1482, 1363, 1177, 1078, 1012cm ⁻¹
	¹ H NMR (CDCl ₃) δ 1.76 (8, 3H), 1.81 (8, 3H), 2.26 (8, 3H), 2.72 (8, 3H), 3.23 (8, 3H), 3.56 (8, 3H), 3.78 (8, 3H), 4.64 (d, J =
1.77.1	1-771 7.2 Hz, 2H), 5.44 - 5.53 (m, 1H), 6.84 (s, 1H), 7.09 (.d, J = 8.4 Hz, 1H), 7.30 - 7.53 (m, 5H), 8.38 - 8.47 (m, 1H)
	IR (KBr) 3376, 1697, 1594, 1524, 1481, 1365, 1270, 1239, 1177, 1112, 1079, 1013cm ⁻¹

Table 153

11 NMR (CDCl ₃) δ 7.12 - 7.50 (m, 9H), 8. [R(KBr)3365, 1693, 1 14 NMR (CDCl ₃) δ 1 (m, 1H), 5.71 (s, 1H), (m, 1H) (\$\(\text{a}\) \text{b}\$\$ \$\(\text{b}\) \text{b}\$\$ \$\(\text{b}\) \text{b}\$\$ \$\(\text{c}\) \text{b}\$\$\(\text{c}\) \text{b}\$\	88 (s, 3H), 2.68 H) 6, 1477, 1374, 1374, 1378, 138, (s, 3H), 2.26 44 (s, 1H), 6.87 12, 1366, 1267, 138 (s, 3H), 3.46 13, 1314, 1257, 13, 12, 14, 14) 1, 126, 138, 138, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13	8 (s, 3H), 3.12 1314, 1291, 1 (e, 3H), 3.48 7 · 7.00 (m, 2H 1173, 1131, 1102, 1068, 1102, 1068, (s, 2H), 5.71 ((s, 2H), 5.71 ((s, 2H), 5.71 ((s, 3H), 3.13 ((s, 3H), 3.13 ((s, 3H), 3.13 ((s, 3H), 3.13 ((s, 3H), 3.72 ((s, 3H), 3.13 ((s, 3H), 3.56 ((s, 3H), 7.05 (d, J=1.8), 1062, 10 (s, 3H), 7.05 (d, J=1.8) (s, 1H), 5.82 (s, 1H), 5.82 (s, 1H), 5.82 (s, 1H), 5.83 (s, 3H), 3.23 (s, 3H), 3.	(a, 3H), 3.78 (a, 3H), 3.78 (a, 2H), 4.6 (a, 2H), 5.13 (b, 2H), 5.13 (a, 2H), 5.13 (b, 2H), 6.15 (c, 2H), 6.15 (c, 2H), 6.15 (c, 2H), 6.13 (c, 3H), 3.78 (c, 3H), 3.53	(a, 3H), 5.14 ((a, 3H), 7.33 - 7.52 (m, 1H), 6.97 (d), 7.92 - 7.98 (d), 7.92 - 7.92 (d), 7.	3.56 (s, 3H), 3.78 (s, 3H), 5.14 (s, 2H), 6.84 (s, 1H), 3.56 (s, 3H), 3.78 (s, 3H), 5.14 (s, 2H), 6.84 (s, 1H), 5.1111, 1078cm ⁻¹ 3.75 (s, 3H), 4.62 (d, J = 6.9 Hz, 2H), 5.46 - 5.68 3.75 (s, 3H), 7.33 - 7.52 (m, 3H), 8.36 - 8.47 62, 1009cm ⁻¹ 52, 1009cm ⁻¹ 52, 1009cm ⁻¹ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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246

Table 154

	111 NMR (CDCl ₃) & 2.35 (d, J = 1.2Hz, 3H), 3.45 (s, 3H), 3.75 (s, 3H), 5.15 (s, 2H), 5.68 (s, 1H), 5.90 (s, 1H), 6.43 (s, 1H),
1.778	6.92 · 7.12 (m, 4H), 7.31 · 7.50 (m, 7H)
	IR (KBr) 3536,3398, 1609, 1587, 1518, 1487, 1244, 1192, 1110, 1071, 1010cm ⁻¹
	111 NMR (CDCl3) 6 1.76 (s, 3H), 1.82 (s, 3H), 2.35 (s, 3H), 3.45 (s, 3H), 3.74 (s, 3H), 4.61 (d, J = 6.9 Hz, 2H), 5.43 · 5.60 (m,
770	111), 6.43 (s, 111), 6.87 - 7,15 (m, 411), 7.36 - 7.51 (m, 211)
6//-1	IR (KBr) 3512,3444, 1611, 1585, 1518, 1488, 1462, 1447, 1416, 1305, 1288, 1243, 1207,
	1112, 1103, 1070, 1012cm ⁻¹
	111 NMR (CDCl3) & 3.45 (s, 3H), 3.75 (s, 3H), 4.84 (s, 2H), 5.15 (s, 2H), 5.70 (s, 1H), 5.88 (s, 1H), 6.44 (s, 1H), 6.91 - 7.20 (m,
-	4H), 7.32 · 7.48 (m, 5H), 7.52 · 7.61 (m, 1H), 7.64 · 7.74 (m, 1H)
00/-1	IR (KBr)3523,3428, 1610, 1587, 1516, 1482, 1463, 1400, 1321, 1285, 1238, 1187,
	1106cm ⁻¹
	1H NMR (CDC)(3) 6 2.68 (8, 3H), 3.13 (8, 3H), 3.54 (8, 3H), 3.78 (6, 3H), 5.19 (8, 2H), 5.44 (d.d. J = 18 & 0.6Hz, 1H), 5.90
100	$(d.d., J = 18 & 0.9Hz, 1H), 6.84 (s, 1H), 6.86 \cdot 6.98 (m, 1H), 7.09 \cdot 7.18 (m, 2H), 7.31 \cdot 7.52 (m, 8H), 7.71 (d.d., J = 7.2 & 2.4)$
10/-1	Hz, 1H)
	IR (KBr) 1608, 1518, 1479, 1365, 1235, 1177, 1118, 1079, 1013cm ⁻¹
	¹ H NMR (CDCl ₃) δ 1.59 (d, J = 6.3Hz, 3H), 2.68 (s, 3H), 3.13 (s, 3H), 3.55 (s, 3H), 3.78 (s, 3H), 5.19 (s, 2H), 5.21 · 5.30 (m, 1.50)
1.782	1H), 6.84 (s, 1H), 7.08 - 7.17 (m, 3H), 7.32 - 7.56 (m, 7H), 7.69 - 7.75 (m, 1H)
	IR (KBr) 3543,3433, 1609, 1518, 1480, 1364, 1235, 1178, 1117, 1078, 1014cm ⁻¹
	¹ H NMR (CDCl ₃) δ 1.59 (d, J = 6.0Hz, 3H), 2.01 (brs, 1H), 3.47 (s, 3H), 3.76 (s, 3H), 5.16 (s, 2H), 5.15 · 5.30 (m, 1H), 5.72
I-783	1.783 (s, 1H), 5.91 (s, 1H), 6.46 (s, 1H), 6.89 - 7.16 (m, 4H), 7.30 - 7.60 (m, 6H), 7.68 - 7.85 (m, 1H)
	IR(KBr)3467, 1613, 1586, 1517, 1484, 1455, 1421, 1395, 1287, 1238, 1111,1070, 1010cm ⁻¹

Table 155

55

50	45	40	. 35	30	25	20	. 15	10	5
1.784	¹ H NMR (CDCl ₃) & 1.77 (s, 3H), 1.81 (s, 3H), 3.23 (s, 3H), 3.81 (s, 6H), 4.64 (d, J = 6.6 Hz, 2H), 5.47 · 5.54 (m, 1H), 6.91 (s, 1H), 6.96 (s, 1H), 7.06 (d, J = 8.4 Hz, 1H), 7.49 (d.d, J = 8.4 & 2.1 Hz, 1H), 7.58 (d, J = 2.1 Hz, 1H), 7.60 · 7.74 (m, 4H) HR (KBr) 2228, 1610, 1490, 1348, 1295, 1266, 1209, 1174, 1112, 1056, 1056,	1.77 (s, 3H), 1.81 (lc (d, J = 8.4 Hz, 1), 1.896, 1348, 1295,	(s, 3H), 3.23 H), 7.49 (d.d 1266, 1209,	(s, 3H), 3.81 1, J = 8.4 & 2 1174, 1112,	(s, 6H), 4.64 (c); 1 Hz, 1H), 7.5	l, J = 6.6 Hz, 2 8 (d, J = 2.11	H), 5.47 - 5 Hz, 1H), 7.6	Hz, 2H), 5.47 - 5.54 (m, 1H), 6.9 2.1Hz, 1H), 7.60 - 7.74 (m, 4H)	91 (8,
1.785	mp169-170 °C 1H NMR (CDCl ₃)	2.07 (s, 6H), 3.20 2933, 1698, 1616,	(s, 3H), 5.16 1478, 1362,	(s, 2H), 5.71 1260, 1227,	(brs, 111), 6.95	7.45 (m, 14fi 2, 869 cm ⁻¹	0		
1.786		2.13 (s, 6H), 3.11 2938, 1516, 1474,	(s, 3H), 3.18 1362, 1290,	(e, 3H), 5.18 1197, 1182,	(e, 2H), 7.09-7	.47 (m, 12H), 14, 973, 867, 8	7.64 (d, J = 42 cm ⁻¹	9.0 Hz, 2H)	
1.787	mp156-157 °C ¹ H NMR (CDCl ₃) δ 2.08 (s, 6H), 3.12 (s, 3H), 3.21 (s, 3H), 5.18 (s, 2H), 7.12-7.58 (m, 14H) ¹ R(KBr) 3494, 3292, 3033, 2934, 1753, 1712, 1517, 1478, 1358, 1294, 1261, 1173, 1151, 967, 870 cm ⁻¹	2.08 (s, 6H), 3.12 (3033, 2934, 1753)	(s, 3H), 3.21	(s, 3H), 5.18	(s, 2H), 7.12-7	.58 (m, 14H)	870 cm ⁻¹		
.788	mp105-106 °C ¹ H NMR (CDCl ₃) δ 1.75 (e, 3H), 1.85 (e, 3H), 2.12 (e, 6H), 3.18 (e, 3H), 3.22 (e, 3H), 4.64 (d, J = 7.0 Hz, 2H), 5.52 (t, J = 6.8 Hz, 1H), 7.08 (s, 1H), 7.16-7.38 (m, 6H), 7.64 (d, J = 8.8 Hz, 2H) ¹ R(KBr) 3434, 2934, 1514, 1474 1362, 1285, 1152, 1113, 971, 916, 861, 845 cm ⁻¹	1.75 (s, 3H), 1.85 (7.16-7.38 (m, 6H), 1514, 1474 1362, 1	s, 3H), 2.12 (7.64 (d, J = 285, 1152, 1	(a, 6H), 3.18 8.8 Hz, 2H) 113, 971, 910	(s, 3H), 3.22 (s	, 3H), 4.64 (d,	J = 7.0 Hz,	2H), 5.52 (t, J	= 6.8
-789	mp148-149 °C ¹ H NMR (CDCl ₃)	2.12 (e, 6H), 2.39 (2931, 1678, 1516, 1	s, 3H), 3.10 ((e, 3H), 3.18	(s, 3H), 5.13 (s, 151, 1113, 969	2H), 7.10-7.3	8 (m, 11H),	7.64 (d, J = 8.0	Hz,

Table 156

	mp139-140 °C
	H NMR ((1001) & 1.76 (s. 3H), 1.82 (s. 3H), 2.14 (s. 6H), 2.46.2.58 (m, 2H), 3.14 (s, 3H), 3.19 (s, 3H), 4.07 (d, J = 7.0 Hz,
1.790	2H) 5 16:5 23 (m. 1H) 7.05 (s. 1H), 7.14-7.41 (m. 6H), 7.66 (d. J = 8.4 Hz, 2H)
	IR(KBr) 3433, 2946, 1514, 1467, 1360, 1282, 1180, 1152, 1115, 868 cm ⁻¹
	mp125-124 C
	111 NMR (DMSO-d6) δ 1.72 (s, 311), 1.77 (s, 311), 2.03 (s, 6H), 4.56 (d, $J=6.6$ Hz, 2H), 5.50 (t, $J=6.0$ Hz, 1H), 6.49 (d, $J=6.0$ Hz, 2H)
1.791	9.6 Hz, 111), 6.65 (s, 111), 6.83 (d, J = 8.4 Hz, 211), 6.98 (d, J = 8.1 Hz, 111), 7.27 (s, 2H), 7.48 (d, J = 5.6 Hz, 2H), 8.92 (brs,
	1HI), 9.48 (brs, 1H)
	IR(KBr) 3337, 2930, 1612, 1518, 1471, 1285, 1258, 1207, 1123, 999, 834 cm ⁻¹
	mp230-231 C
	1H NMR (DMSO-d6) 6 2.04 (8, 6H), 2.33 (8, 3H), 5.09 (8, 2H), 6.50 (d, J = 8.4 Hz, 1H), 6.59 (8, 1H), 6.85 (d, J = 8.1 Hz, 2H),
1.792	7.04 (d, J = 5.4 Hz, 1H), 7.23 (d, J = 7.5 Hz, 2H), 7.29 (s, 1H), 7.41 (d, J = 7.8 Hz, 2H), 7.49 (d, J = 8.7 Hz, 2H), 9.05 (brs,
	1H), 9.50 (brs, 1H)
	IR(KBr) 3287, 1609, 1519, 1475, 1208, 1245, 1126, 1006, 841 cm ⁻¹
	mp118-119 ℃
	1H NMR (DMSO-d6) 8 1.64 (8, 3H), 1.70 (8, 3H), 2.03 (8, 6H), 2.42-2.50 (m, 2H), 3.96 (t, J = 6.9 Hz, 2H), 5.27 (t, J = 7.2 Hz,
1.793	2H), 6.49 (d, J = 8.1 Hz, 1H), 6.55 (s, 1H), 6.84 (d, J = 8.4 Hz, 2H), 6.96 (d, J = 8.1 Hz, 1H), 7.27 (s, 2H), 7.48 (d, J = 8.7 Hz,
	2H), 8.89 (brs, 1H), 9.48 (brs, 1H)
	IR(KBr) 3392, 2928, 1610, 1519, 1466, 1250, 1230, 1205, 1178, 1128, 1031, 834, 808 cm ⁻¹
	mp139-140 C
	¹ H NMR (DMSO-d ₆) δ 1.75 (s, 3H), 1.77 (s, 3H), 2.50 (s, 6H), 3.39 (s, 3H), 3.44 (s, 3H), 4.69 (d, J = 6.2 Hz, 2H), 5.50 (t, J =
1-794	6.6 Hz, 1H), 7.29-7.33 (m, 3H), 7.41-7.47 (m, 4H), 7.59-7.68 (m, 2H)
	IR(KBr) 3433, 2933, 1675, 1516, 1473, 1366, 1358, 1292, 1259, 1182, 1172, 1151, 969, 873 cm. 1

Table 157

55

50	45	40	35	30	25	20	15	10
1-795	mp151-152 °C ¹ H NMR (DMSO-d ₆) δ 2.05 (8, 6H), 2.18 (8, 3H), 3.36 (8, 3h), 3.44 (8, 3H), 5.22 (8, 2H), 7.08-7.63 (m, 13H) 1R(KBr) 3434, 3023, 2928, 1617, 1477, 1368, 1293, 1261, 1183, 1152, 966, 870 cm ⁻¹	de) & 2.05 (s, 23, 2928, 1617)	6H), 2.18 (s, 3)	H), 3.36 (s, 3 293, 1261, 1	h), 3.44 (a	8, 3H), 5.22 (8, 2H, 966, 870 cm ⁻¹	I), 7.08-7.63 (m.	, 13H)
962-1	L	-d ₆) & -1.65 (s, 7 (m, 111), 7.28	3H), 1.70 (s, 3 -7.34 (m, 3H), 7 1439, 1362, 15	H), 2.05 (s, 67.41-7.47 (m, 295, 1269, 1	3H), 2.48. 4H), 7.59	2.53 (m, 2H), 3.3 9-7.64 (m, 2H)	8 (s, 3H), 3.44 (mp159·160 ℃ III NMR (DMSO·d ₆) δ·1.65 (s, 3H), 1.70 (s, 3H), 2.05 (s, 6H), 2.48·2.53 (m, 2H), 3.38 (s, 3H), 3.44 (s, 3H), 4.10 (t, J = 7.4 Hz, 2H), 5.21·5.27 (m, 1H), 7.28·7.34 (m, 3H), 7.41·7.47 (m, 4H), 7.59·7.64 (m, 2H) IR(KBr) 3434, 2938, 1519, 1478, 1439, 1362, 1295, 1269, 1173, 1162, 1125, 960, 870, 839 cm ⁻¹
1.797	mp130-131 °C 14 NMR (DMSO-d ₆) δ 1.72 (s, 3H), 1.75 (s, 3H), 2.02 (s, 6H), 4.59 (d, J = 6.4 H; (m, 7H), 7.25 (s, 2H), 8.96 (brs, 1H), 9.41 (brs, 1H) IR(KBr) 3392, 1608, 1589, 1518, 1475, 1322, 1258, 1170, 1127, 974, 836, 808 cm ⁻¹	de) & 1.72 (s, 1H), 8.96 (brs, 1589, 1518,	3H), 1.75 (s, 3 1H), 9.41 (brs, 1	H), 2.02 (s, (IH) 258, 1170, 11	3H), 4.59	(d, J = 6.4 Hz, 2)	H), 5.48 (t, J =	mp130-131 °C ¹ H NMR (DMSO-d ₆) δ 1.72 (s, 3H), 1.75 (s, 3H), 2.02 (s, 6H), 4.59 (d, J = 6.4 Hz, 2H), 5.48 (t, J = 7.2 Hz, 1H), 6.81-7.07 ¹ (m, 7H), 7.25 (s, 2H), 8.96 (brs, 1H), 9.41 (brs, 1H) ¹ R(KBr) 3392, 1608, 1589, 1518, 1475, 1322, 1258, 1170, 1127, 974, 836, 808 cm ⁻¹
862-1	mp143-144 ℃ ¹ H NMR (DMSO-d ₆) δ 2.03 (s, 6H), 2.32 (s, 3H), 5.12 (s, 2H), 6.82-7.41 (m, 13H), 9.10 (brs, 1H), 9.41 (brs, 1H) ¹ IR(KBr) 3344, 1609, 1521, 1427, 1255, 1236, 1205, 1129, 998, 832, 806, 792 cm ⁻¹	de) δ 2.03 (s,	6H), 2.32 (s, 3H	H), 5.12 (s, 2)	H), 6.82-7 8, 832, 80	.41 (m, 13H), 9.1 06, 792 cm. ¹	0 (brs, 1H), 9.4	1 (brs, 1H)
1-799	mp 163-164 °C ¹ HI NMR (DMSO-d ₆)	de) & 1.87 (s, .) 76, 3001, 2922,	3H), 1.90 (s, 31 1698, 1527, 15	H), 3.42 (6, 3	H), 5.15 (s, 2H), 6.88·7.03	(m, 4H), 7.24-7	mp 163-164 °C ¹ H NMR (DMSO-d ₆) δ 1.87 (s, 3H), 1.90 (s, 3H), 3.42 (s, 3H), 5.15 (s, 2H), 6.88-7.03 (m, 4H), 7.24-7.58 (m, 9H), 7.97 (brs, 1H), 9.02 (brs, 1H) 1R), 9.02 (brs, 1H) 1R(KBr) 3563, 3476, 3001, 2922, 1698, 1527, 1512, 1476, 1359, 1303, 1261, 1237, 1210, 1195, 1167, 1146, 871 cm ⁻¹
008-1	¹ H NMR (CDCl ₃) δ 1.30 (d, J = 6.6Hz, 6H), 2.58 (s, 3H), 2.97 (quintet, J = 6.6Hz, 1H), 3.54 (s, 3H 2H), 6.87 (s, 1H), 7.11 (d, J = 9.0 Hz, 1H), 7.22 - 7.35 (m, 8H), 7.47 - 7.68 (m, 6H), 8.19 - 8.25 (m, 2H) IR (KBr) 1737, 1604, 1519, 1482, 1392, 1366, 1267, 1173, 1131, 1084, 1062, 1009cm ⁻¹	ô 1.30 (d, J = 7.11 (d, J = 9.0 04, 1519, 1482,	= 6.6Hz, 6H), 2 Hz, 1H), 7.22 - 1392, 1366, 13	.58 (s, 3H), 5 7.35 (m, 8H 267, 1173, 11	2.97 (quin), 7.47 - 7 31, 1084	itet, J = 6.6Hz, 1 .68 (m, 6H), 8.19 . 1062, 1009cm ⁻¹	H), 3.54 (s, 3H)	ICl3) & 1.30 (d, J = 6.6Hz, 6H), 2.58 (s, 3H), 2.97 (quintet, J = 6.6Hz, 1H), 3.54 (s, 3H), 3.77 (s, 3H), 5.17 (s, 1H), 7.11 (d, J = 9.0 Hz, 1H), 7.22 - 7.35 (m, 8H), 7.47 - 7.68 (m, 6H), 8.19 - 8.25 (m, 2H) 7, 1604, 1519, 1482, 1392, 1366, 1267, 1173, 1131, 1084, 1062, 1009cm ⁻¹

Table 158

	111 NMR (CDCl3) 6 2.56 (s, 3H), 3.55 (s, 3H), 3.78 (s, 3H), 5.17 (s, 2H), 5.69 (s, 1H), 6.84 (s, 1H), 6.91 (d.d, J = 8.4 & 1.8
1.801	1.801 Hz, 111), 7.02 (d, J = 8.4 Hz, 111), 7.04 (d, J = 1.8Hz, 111), 7.04 · 7.14 (m, 111), 7.33 · 7.47 (m, 8H)
	IR(KBr)3446, 1613, 1585, 1522, 1477, 1396, 1357, 1291, 1243, 1204, 1174, 1076,1017, 1006cm ⁻¹
	foam
	1H NMR (CDCl ₃) δ 2.82 (8, 3H), 3.22 (8, 3H), 3.25 (8, 3H), 3.26 (8, 3H), 3.55 (8, 3H), 3.78 (8, 3H), 5.48 (8, 2H), 6.86 (8, 1H),
1.802	7.27 (d, J = 8.4 Hz, 1H), 7.39 (d, J = 8.7 Hz, 2H), 7.40 (dd, J = 8.4, 2.1 Hz, 1H), 7.43 (d, J = 2.1 Hz, 1H), 7.67 (d, J = 8.7 Hz,
	IR (Nujol) 1608, 1519, 1480, 1462, 1365, 1176, 1151, 1079, 970, 876, 798 cm ⁻¹
	foam
	1H NMR (CD3OD) 6 3.28 (s, 3H), 3.68 (s, 3H), 5.17 (s, 2H), 6.43 (s, 1H), 6.81 (dd, J = 8.4, 2.1 Hz, 1H), 6.85 (d, J = 8.7 Hz,
1-803	2H), 6.89 (d, $J = 2.1$ Hz, 1H), 7.03 (d, $J = 8.4$ Hz, 1H), 7.46 (d, $J = 8.7$ Hz, 2H)
	IR (Nujol) 3342, 1611, 1592, 1523, 1488, 1460, 1251, 1225, 1114, 1072, 1012, 941, 826, 756 cm ⁻¹
	mp 150-162°C
,	1H NMR (DMSO-d6) & 3.31 (s, 3H), 3.64 (s, 3H), 5.00 (s, 2H), 6.39 (s, 1H), 6.66 (dd, J = 8.4, 2.1 Hz, 1H), 6.79 (d, J = 2.1
1.804	Hz, 1H), 6.84 (d, $J = 8.7$ Hz, 2H), 6.98 (d, $J = 8.4$ Hz, 1H), 7.44 (d, $J = 8.7$ Hz, 2H)
	IR (Nujol) 3459, 3291, 1612, 1694, 1522, 1489, 1458, 1257, 1226, 1101, 1073, 1011, 960, 823 cm ⁻¹
	mp 190-192°C
	1H NMR (DMSO.d6) 6 2.88 (8, 3H), 3.41 (8, 3H), 3.45 (8, 3H), 3.52 (8, 3H), 3.79 (8, 3H), 5.43 (8, 2H), 7.08 (8, 1H), 7.16 (8,
1-805	1H), $7.32 \sim 7.36$ (m, 2H), 7.46 (d, $J = 8.4$ Hz, 1H), 7.49 (d, $J = 8.7$ Hz, 2H), $7.53 \sim 7.64$ (m, 3H), 7.74 (d, $J = 8.7$ Hz, 2H), 7.88
	\sim 7.91 (m, 2H).
	IR (Nujol) 1604, 1519, 1481, 1462, 1367, 1175, 1081, 1009, 878, 841, 816, 801 cm ⁻¹

Table 159

55

	<i>45</i>	40	35	30	25	20	15	10	5
-806	foam I-H NMR (C:1 6.98 (dd, J = 7.78~7.82 (foam ¹ H NMR (CDCl ₃)	l), 3.74 (s, 31l), 19 (d, J = 8.4 Hz 23, 1489, 1455,	5.31 (s, 211), z, 111), 7.11 (1253, 1226, 1	6.94 (s, 1H), (d, J = 2.1 Hz, 10	145 (s, 1H), 6. 1H), 7.46~7.(13, 942, 816, 7	64 (s, 1H), 6.9 50 (m, 3H), 7.6	3 (d, J = 8.7 H 53 (d, J = 8.7 H	c, 2H),
-807	foam 11 NMR (CDC) 8.4 Hz, 1H), 7.3 1H) IR (Nujol) 1608	foam 111 NMR (CDCla) & 2.76 (s, 31!), 3.21 (s, 31!), 3.30 (s, 31!), 3.56 (s, 31!), 3.78 (s, 31!), 5.38 (s, 21!), 6.84 (s, 11!), 7.21 (d, J = 8.4 Hz, 11!), 7.38 (d, J = 8.7 Hz, 21!), 7.38 (d, J = 8.7 Hz, 21!), 8.80 (s, 11!), 7.38 (d, J = 8.7 Hz, 11!), 7.67 (d, J = 8.7 Hz, 21!), 8.80 (s, 11!), 7.38 (d, J = 8.7 Hz, 21!), 8.80 (s, 11!), 7.38 (d, J = 8.7 Hz, 21!), 8.80 (s, 11!), 7.38 (d, J = 8.7 Hz, 21!), 8.80 (s, 11!)), 3.21 (s, 3H), 2H), 7.38 (dd, 3	3.30 (s, 3H), 3 J = 8.4, 2.1 Hz 1151, 1079, 9	.56 (s, 3H), 3. , 1H), 7.46 (d, 71, 876, 798 e	78 (s, 3H), 5.3 , J = 2.1 Hz, H m ⁻¹	8 (s, 211), 6.84 H), 7.67 (d, J =	(6, 1H), 7.21 - 8.7 Hz, 2H), 8	7.21 (d, J = H), 8.80 (s,
-808	mp 193-195 C 1H NMR (CDCI; 7.21 (d, J = 8.4 2H) 1R (Nujol) 1606	np 193-195°C: H NMR (CDCl ₃) © 2.64 (s, 3H), 2.74 (s, 3H), 3.21 (s, 3H), 3.30 (s, 3H), 3.56 (s, 3H), 3.78 (s, 3H), 5.28 (s, 2H), 6.84 (s, 1H), 2.1 (d, J = 8.4 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H), 7.38 (dd, J = 8.4, 2.1 Hz, 1H), 7.44 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1H) 3.1 (d, J = 8.4 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H), 7.38 (dd, J = 8.4, 2.1 Hz, 1H), 7.44 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1H) 3.2 (d, J = 8.4 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H), 7.38 (dd, J = 8.4, 2.1 Hz, 1H), 7.44 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1H), 7.38 (dd, J = 8.7 Hz, 1H), 7.38 (dd, J = 8.7 Hz, 1H), 7.44 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1H), 7.38 (dd, J = 8.7 Hz, 1H), 7.44 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1H), 7.44 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1H), 7.44 (d, J = 8.7 Hz, 1H), 7.68 (d, J = 8.7 Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz,	J, 2.74 (s, 3H), J = 8.7 Hz, 2H	3.21 (s, 3H), 3), 7.38 (dd, J =	.30 (s, 3H), 3. = 8.4, 2.1 Hz, 079, 1012, 940	56 (s, 3H), 3.7 1H), 7.44 (d, J	8 (s, 3H), 5.28 = 2.1 Hz, 1H 6 cm ⁻¹	(s, 2H), 6.84 (e	, 1H),
-809	foam 1H NMR (CDC) 3.78 (s, 3H), 5.2 (d, J = 2.1 Hz, 1 IR (KBr) 3434,	foam 1H NMR (CDCl ₃) & 1.42 (t, J = 7.5 Hz, 3H), 2.73 (s, 3H), 2.96 (q, J = 7.5 Hz, 2H), 3.21 (s, 3H), 3.31 (s, 3H), 3.56 (s, 3H), 3.78 (s, 3H), 5.28 (s, 2H), 6.84 (s, 1H), 7.21 (d, J = 8.4 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H), 7.38 (dd, J = 8.4, 2.1 Hz, 1H), 7.44 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 2H) 1R (KBr) 3434, 1609, 1579, 1519, 1481, 1365, 1177, 1151, 1080, 970, 876, 797 cm ⁻¹	: 7.5 Hz, 3H), 2 1H), 7.21 (d, .7 Hz, 2H) , 1481, 1365, 1	J = 8.4 Hz, 11 177, 1151, 108	.96 (q, J = 7.5 H), 7.38 (d, J s	Hz, 2H), 3.21 = 8.7 Hz, 2H), 97 cm ⁻¹	(e, 3H), 3.31 7.38 (dd, J = E	(e, 3H), 3.56 (e 3.4, 2.1 Hz, 1H)	, 3H),

Table 160

1.810	foain HI NMR (CDCI3) & 2.71 (8, 311), 3.21 (8, 311), 3.35 (8, 311), 3.56 (8, 311), 3.78 (8, 311), 5.38 (8, 211), 6.84 (8, 111), 7.25 (d, J = 8.7 Hz, 211), 7.40 (dd, J = 8.4, 2.1 Hz, 111), 7.46 (d, J = 2.1 Hz, 111), 7.54~7.64 (m, 311), 7.68 (d, J = 8.7 Hz, 211), 7.40 (dd, J = 8.7 Hz, 111), 7.46 (d, J = 2.1 Hz, 111), 7.54~7.64 (m, 311), 7.68 (d, J = 8.7 Hz, 211), 8.12~8.16 (m, 211) R.7 Hz, 211, 8.12~8.16 (m, 211) R.7 Hz, 211, 8.15~8.16 (m, 211)
1.811	
1-812	fourn 1H NMR (CDCl3) & 2.74 (s, 611), 3.17 (s, 3H), 3.21 (s, 3H), 3.55 (s, 3H), 3.78 (s, 3H), 5.35 (s, 2H), 6.84 (s, 1H), 7.28 (d, J = 8.4 Hz, 1H), 7.36 (dd, J = 8.4, 2.1 Hz, 1H), 7.38 (dd, J = 8.7 Hz, 2H), 7.41 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 2H), 8.41 (d, J = 2.4 Hz, 1H), 8.50 (d, J = 2.4 Hz, 1H) J = 2.4 Hz, 1H), 8.50 (d, J = 2.4 Hz, 1H) IR (KBr) 3433, 1609, 1519, 1481, 1364, 1177, 1151, 1080, 971, 876, 798 cm ⁻¹
1.813	form 1H NMR (DMSO-d ₆) ô 2.47 (s, 6H), 2.55 (s, 3H), 3.30 (s, 3H), 3.64 (s, 3H), 5.16 (s, 2H), 6.39 (s, 1H), 6.66 (dd, J = 8.4, 2.1 Hz, 1H), 6.76 (d, J = 2.1 Hz, 1H), 6.84 (d, J = 8.7 Hz, 2H), 7.03 (d, J = 8.4 Hz, 1H), 7.44 (d, J = 8.7 Hz, 2H), IR (KBr) 3399, 3165, 1611, 1521, 1488, 1406, 1362, 1213, 1114, 1069, 1014, 818, 759 cm ⁻¹

Table 161

50	45	40	. 35	30	25	20	15	10	5
1.814	IND 240-241°C 111 NMR (DMSO-da) \$\delta\$ 2.66 (s, 3H), 3.30 (s, 3H), 3.64 (s, 3H), 5.26 (s, 2H), 6.39 (s, 1H), 6.66 (dd, J = 8.4, 2.1 Hz, 1 Hz, 1 Hz, 1 Hz, 1 Hz, 1 Hz, 1 Hz, 2 Hz, 2 Hz, 2 Hz, 1 Hz, 1 Hz, 1 Hz, 2 Hz, 2 Hz, 2 Hz, 1 Hz, 1 Hz, 1 Hz, 1 Hz, 1 Hz, 1 Hz, 2 Hz, 1 Hz,	1°C JMSO-dc) δ 2.66 (s, 3H), 3.30 (s, 3H), 3.64 (s, 3H), 5.26 (s, 2H), 6.39 (s, 1H), 6.66 (dd, J = 8.4, 2.1 Hz, 1H), 6.77 Hz, 1H), 6.84 (d, J = 8.7 Hz, 2H), 7.02 (d, J = 8.4 Hz, 1H), 7.44 (d, J = 8.7 Hz, 2H), 8.48 (d, J = 2.7 Hz, 1H), 8.53 (d, 1H) 111) 3513, 3491, 3670, 1610, 1581, 1523, 1488, 1459, 1408, 1275, 1236, 1216, 1111, 1065, 1040, 821, 785, cm ⁻¹	3H), 3.30 (s, 3.7 Hz, 2H), 7.0	2 (d, J = 8.4 F	H), 5.26 (s, 2H [z, 1H]), 7.44 (c)), 6.39 (s, 1H) 1, J = 8.7 Hz, 5	H., 6.66 (dd, J = H.), 8.48 (d, J	8.4, 2.1 Hz, 1F = 2.7 Hz, 1H), 8	1), 6.77 3.53 (d,
1-815	mp 288-290 III NMIR (I III), 7.26 (C IIz, 2II), IIR (Nujal) :	0¢. (decomp.) JMSO-da) & 2.89 (e, 3H), 3.41 (s, 3H), 3.45 (s, 3H), 3.52 (s, 3H), 3.79 (s, 3H), 4.95 (s, 2H), 5.65 (s, 1H), 7.08 (s, 4, J = 8.4 Hz, 1H), 7.33 (dd, J = 8.4, 2.1 Hz, 1H), 7.38 (d, J = 2.1 Hz, 1H), 7.49 (d, J = 8.7 Hz, 2H), 7.74 (d, J = 8.7 Hz, 1H), 7.10 (d, J = 8.7 Hz, 2H), 7.74 (d, J = 8.7 Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz,	3H), 3.41 (s, ; 3 (dd, J = 8.4, 4, 1516, 1480,	2.1 Hz, 1H), 7.16 (s, 3.1 Hz, 1H), 7.162, 1364, 1	II), 3.52 (s, 31 .38 (d, J = 2.1 172, 1078, 10	l), 3.79 (s, 3H Hz, 1H), 7.46 15, 970, 874, 1), 4.95 (a, 2H)) (d, J = 8.7 Hi 341, 796 cm ⁻¹	, 5.65 (s, 111), 7	7.08 (s, J = 8.7
1.816	mp 204-206°C 1H NMR (DMSO-d ₆) δ 2.87 (s, 3H), 3.45 (s, 3H), 3.52 (s, 3H), 3.78 (s, 3H), 5.40 (s, 2H), 7.08 (s, 1H), 7.32 (dd, 1-816) 1-816	5°C (MSO-dc) & 2.87 (s, 3H), 3.45 (s, 3H), 3.46 (s, 3H), 3.52 (s, 3H), 3.78 (s, 3H), 5.40 (s, 2H), 112, 111), 7.33 (d, J = 8.4 Hz, 114), 7.39 (d, J = 2.1 Hz, 114), 7.48 (d, J = 8.7 Hz, 2H), 7.71 (d) 8.7 Hz, 2H), 8.88 (d, J = 5.1 Hz, 111), 9.21 (d, J = 1.2 Hz, 111) (d) 608, 1586, 1557, 1521, 1480, 1464, 1360, 1352, 1176, 1156, 1078, 884, 835, 818, 799 cm ⁻¹	3H), 3.45 (s, 3 3.4 Hz, 1H), 7. J = 6.1 Hz, 1H1 1, 1480, 1464,	H), 3.46 (s, 3F) 39 (d, J = 2.1), 9.21 (d, J = 1360, 1362, 1	I), 3.52 (s, 3H IIz, 1H), 7.48 1.2 IIz, 1H) 176, 1166, 10), 3.78 (s, 3H) (d, J = 8.7 Hz. 78, 884, 835, 8	, 5.40 (s, 2H), , 2H), 7.71 (dd	7.08 (s, 1H), 7.3	32 (dd, z, 1H),
1-817	foam 'H NMR (C 1.8, 8.4 Hz, 2H), 7.55 (n	ô 2.20 (s, 3H) 1.98 (d, J = 8.4 F	, 3.45 (s, 3H), Hz, 1H), 7.09 (3.75 (s, 3H), (d, J = 1.8 Hz,	5.15 (a, 2H), 6 1H), 7.18 (m,	.46 (s, 1H), 6.9 1H), 7.37 (t, e	92 (d, J = 8.7 J = 7.2 Hz, 1H	Hz, 2H), 6.94 (d	ld, J =

Table 162

. . ..

1.818	_
	HI NMR (CDCl3) & 1.53 (s, 9H), 2.67 (s, 3H), 3.11 (s, 3H), 3.21 (s, 3H), 3.56 (s, 3H), 3.77 (s, 3H), 5.12 (s, 2H), 6.52 (s, 1H),
	6.84 (s, 111), 7.13 (d, J = 8.4 Hz, 111), 7.33 (dd, J = 2.1, 8.4 Hz, 111), 7.38 (d, J = 8.7 Hz, 2H), 7.39 (m, 5H), 7.74 (d, J = 8.7 Hz,
	211)
	IR (KBr) 1692, 1614, 1520, 1480, 1390, 1367, 1231, 1175, 1162, 1078, 876, 799 cm ⁻¹
=	m.p 172 °C
	11 NMR (CDCL3) & 2.77 (8, 31!), 3.05 (8, 31!), 3.16 (8, 31!), 3.22 (8, 31!), 3.36 (8, 31!), 3.78 (8, 31), 5.16 (8, 21!), 6.46 (8, 11!),
1.819	6.85 (s, 111), 7.14 (d, J = 8.4 Hz, 1H), 7.25 (d, J = 8.7 Hz, 2H), 7.35 (dd, J = 2.1, 8.4 Hz, 1H), 7.39 (d, J = 8.7 Hz, 2H), 7.40 (d,
	J = 2.1, 1H), 7.47 (d, $J = 8.4$ Hz, 2H), 7.67 (d, $J = 8.7$ Hz, 2H)
	IR (KBr) 1608, 1519, 1480, 1361, 1175, 1154, 1079, 972, 876, 801 cm ⁻¹
=	mp 180-182 °C
	1H NMR (CDCl ₃) δ 2.69 (8, 3H), 3.14 (8, 3H), 3.21 (8, 3H), 3.53 (8, 3H), 3.71 (d, $J = 0.9$ Hz, 3H), 5.20 (8, 2H), 6.93 (d, $J = 8.4$ (1)
1-820 I	Hz, 1H), 7.34-7.49 (m, 9H), 7.59 (dd, J = 9.0, 1.2 Hz, 2H)
1	IR (KBr) 1518, 1469, 1357, 1179, 1151, 1038, 871, 821 cm ⁻¹
	mp 183-185 ℃
	1H NMR (CDCl3) & 3.41 (8, 3H), 3.66 (d, J = 0.9 Hz, 3H), 4.91 (8, 1H), 5.17 (8, 2H), 5.62 (8, 1H), 5.70 (8, 1H), 6.92-6.96 (m,
1.821	211), 6.97 (dd, J = 8.4, 2.0 Hz, 1H), 7.04 (d, J = 8.4 Hz, 1H), 7.10 (d, J = 2.0 Hz, 1H), 7.36-7.48 (m, 7H)
	IR (KBr) 3541, 3398, 1588, 1523, 1461, 1410, 1320, 1261, 1217, 1037, 836, 747 cm ⁻¹
=	mp 108-110 °C
	11 NMR (CDCl ₃) 6 2.69 (8, 3H), 3.13 (8, 3H), 3.45 (8, 3H), 3.53 (8, 3H), 3.77 (8, 3H), 4.66 (8, 2H), 4.76 (8, 2H), 5.19 (8, 2H),
9 228-1	6.86 (s, 111), 7.71 (d, $J = 8.4$ Hz, 1H), 7.33.7.48 (m, 9H), 7.62 (d, $J = 8.4$ Hz, 2H)
<u> </u>	IR (KBr) 1482, 1390, 1307, 1276, 1177, 1083, 1063, 1013, 807 cm ⁻¹

Table 163

	mp 192-194 °C
	111 NMR (CDCE) 6 1.70 (br s, 111), 2.69 (s, 311), 3.13 (s, 314), 3.53 (s, 311), 3.77 (s, 311), 4.78 (s, 211), 5.19 (s, 211), 6.87 (s,
1.823	111), 7.15 (d, J = 8.4 Hz, 111), 7.35 (dd, J = 8.4, 2.3 Hz, 111), 7.37-7.49 (m, 8H), 7.63 (d, J = 7.8 Hz, 2H)
	1R (KBr) 3554, 3434, 1522, 1481, 1389, 1364, 1277, 1234, 1174, 1085, 1012, 807 cm ⁻¹
	mp 136-137 C
	1H NMR (CDCl3) & 3.19 (s, 3H), 3.60 (s, 3H), 3.71 (s, 3H), 4.96 (s, 1H), 5.18 (s, 2H), 5.78 (s, 1H), 6.73 (s, 1H), 6.88 (dd, J=
1.824	8.3, 2.1 Hz, 111), 7.02 (d, J = 2.1 Hz, 111), 7.08 (d, J = 8.3 Hz, 111), 7.34 (d, J = 8.6 Hz, 2H), 7.41-7.47 (m, 5H), 7.63 (d, J = 8.6
	112, 211)
	IR (KBr) 3479, 1473, 1347, 1149, 1010, 869, 803, 784, 747 cm ⁻¹
	mp 149.151 C
9	1H NMR (CDCL3) & 2.68 (s, 3H), 3.13 (s, 3H), 3.20 (s, 3H), 3.69 (s, 3H), 3.71 (s, 3H), 5.20 (s, 2H), 7.18 (d, J = 8.7 Hz, 1H).
1-820	7.21 (s, 1H), $7.35 \cdot 7.50$ (m, 9H), 7.63 (d, $J = 8.1$ Hz, 2H)
	IR (KBr) 1519,1469, 1353, 1173, 1149, 1050, 966, 873, 849, 810 cm ⁻¹
	mp 82-85 ℃
_	¹ H NMR (CDCl ₃) δ 1.78 (s, 3H), 1.82 (s, 3H), 2.70 (s, 3H), 3.20 (s, 3H), 3.25 (s, 3H), 3.69 (s, 3H), 3.70 (s, 3H), 4.65 (d, J=
1-826	6.9 Hz, 2H), 5.51 (t, J = 6.9 Hz, 1H), 7.11 (d, J = 8.8 Hz, 1H), 7.21 (e, 1H), 7.37 (d, J = 8.9 Hz, 2H), 7.38 (dd, J = 8.8, 2.2 Hz,
	1H), 7.42 (d, $J = 2.2$ Hz, 1H), 7.63 (d, $J = 8.9$ Hz, 2H)
	IR (KBr) 1516, 1468, 1363, 1180, 1151, 1045, 967, 846, 788 cm ⁻¹
	amorphous 1H NMR (CDCl ₃) & 1.77 (s, 3H), 1.83 (s, 3H), 3.58 (s, 3H), 3.70 (s, 3H), 4.64 (d, J = 6.7 Hz, 2H), 4.97 (s, 1H), 5.04 (s, 1H),
1.827	43
	1H), $7.00 (d, J = 8.1 \text{ Hz}, 1\text{H})$, $7.47 (d, J = 8.7 \text{ Hz}, 2\text{H})$
	IR (CHCl ₃) 3595, 3536, 1613, 1584, 1521, 1474, 1406, 1356, 1266, 1094, 1062, 1014, 973, 835 cm ⁻¹

Table 164

1-828	mp 161·162 C 411 NMR (CDCl ₃) & 3.58 (s, 3H), 3.71 (s, 3H), 4.85 (s, 1H), 4.93 (s, 1H), 5.18 (s, 2H), 5.78 (s, 1H), 6.73 (s, 1H), 6.87·6.92 (m, 3H), 7.02 (d, J = 1.8 Hz, 1H), 7.07 (d, J = 8.1 Hz, 1H), 7.37·7.51 (m, 7H) 1R (KBr) 3510, 3442, 3326, 1523, 1485, 1453, 1395, 1239, 1061, 1003, 972, 836, 753 cm ⁻¹
1.829	mp 85-87 °C 111 NMR (CIXCI), \$\delta\$ 1.69 (s, 311), 1.75 (s, 311), 2.57 (q, J = 6.9 Hz, 211), 2.70 (s, 311), 3.20 (s, 311), 3.24 (s, 311), 3.69 (s, 311), 3.69 (s, 311), 4.09 (t, J = 6.9 Hz, 211), 5.22 (t, J = 6.9 Hz, 111), 7.10 (d, J = 8.4 Hz, 114), 7.21 (s, 114), 7.37-7.44 (m, 911), 7.63 (d, J = 8.4 Hz, 211) 12 S.4 Hz, 211) 13 R (KBr) 1519, 1468, 1362, 1179, 1150, 1046, 967, 865, 847 cm ⁻¹
1-830	mp 160·162 °C ¹ H NMR (CDCl ₃) δ 2.38 (s, 3H), 2.68 (s, 3H), 3.12 (s, 3H), 3.20 (s, 3H), 3.69 (s, 3H), 3.70 (s, 3H), 5.15 (s, 2H), 7.16-7.25 (m, 4H), 7.34-7.44 (m, 6H), 7.63 (d, J = 8.1 Hz, 2H). ¹ H(KBr) 1519, 1469, 1365, 1173, 1149, 1049, 965, 873, 849, 808 cm ⁻¹
1.831	amorphous 111 NMR (CDCl ₃) & 1.69 (s, 311), 1.76 (s, 3H), 2.55 (q, J = 6.9 Hz, 1H), 3.58 (s, 3H), 3.69 (s, 3H), 4.08 (t, J = 6.9 Hz, 2H), 4.98 (s, 1H), 5.18 (s, 1H), 5.23 (t, J = 6.9 Hz, 1H), 5.80 (s, 1H), 6.72 (s, 1H), 6.86-6.89 (m, 3H), 6.97-7.00 (m, 3H), 7.47 (d, J = 8.4 Hz, 2H) 111 (KBr) 3595, 3538, 1521, 1471, 1265, 1173, 1095, 1063, 1015, 835 cm ⁻¹
1.832	mp 200-201 °C 1H NMR (CDCl ₃)

Table 165

55

50	1-83:3	1-834	1-835	1-836 2	r-837
45	mp 141-142 °C ¹ H NMR (CDCl ₃)	mp 188-189 °C ¹ H NMR (CDCL ₃)	mp180-181 °C ¹ H NMR (CDCl ₃) δ 3.51 (s, 3H), 3.75 (s, 3H), 5.17 (s, 2H), 5.70 (brs, 1H), 6.77 (brs, 1H), 6.45 (s, 1H), 6.95-7.10 (m, 4H), 7.27-7.46 (m, 8H), 7.96 (brs, 1H)) 1R(KBr) 3422, 3358, 1706, 1602, 1489, 1454, 1410, 1289, 1253, 1203, 1180, 1125, 1101, 1071, 1015 cm ⁻¹	mp148·149 °C ¹ H NMR (DMSO-de) & 1.77 (s, 3H), 1.80 (s, 3H), 2.54 (s, 6H), 3.35 (s, 3H), 3.42 (s, 3H), 3.48 (s, 3H), 4.73 (d, J = 4.5 Hz, 2H), 5.50·5.53 (in, 1H), 7.30·7.54 (m, 8H) IR(KBr) 3495, 3293, 1754, 1712, 1516, 1359, 1359, 1243, 1175, 1147, 971, 866, 845 cm ⁻¹	mp136-138 °C ¹ H NMR (DMSO-da)
40	6 2.03 (s, 3H) 3, 2938, 1518,	6 3.49 (s, 3H) 3H), 7.23-7.31 8, 1627, 1584,	5 3.51 (s, 3H) 7.96 (brs, 1H)) 7, 1706, 1602,	.) & 1.77 (e, 3 (II), 7.30-7.54 () & 2.32 (s, 3 , 3028, 2934, 1
35	, 2.11 (s, 3H), 1470, 1364, 11	, 3.72 (s, 3H), (m, 2H), 7.38- 1523, 1489, 1	, 3.75 (s, 3H), 1489, 1454, 14	iH), 1.80 (s, 3) (m, 811) 1616, 1359, 13	H), 2.50 (s, 6H
30	2.54 (s, 3H), 3	6.15 (s, 2H), 6 7.45 (m, 4H) 1460, 1412, 13	5.17 (8, 2H), E	H), 2.54 (s, 6H	I), 3.31 (s, 3H), 16, 1357, 1176
25	1.15 (s, 311), 3.2 9, 970, 871, 839	.68 (brs, 1H), (5.70 (brs, 1H), 1, 1203, 1180, 1), 3.35 (e, 3H), , 1147, 971, 86	3.35 (s, 3H), 3 , 1147, 972, 86
20	1 (s, 3H), 5.20	.84 (brs, 1H),	5.77 (brs, 1H), 126, 1101, 107	3.42 (s, 3H), 3 6, 845 cm ⁻¹	.44 (s, 3H), 5.2 8, 842 cm ⁻¹
. 15	(e, 2H), 7.12-	6.42-6.56 (m,	6.45 (s, 1H), 1, 1015 cm ⁻¹	.48 (s, 3H), 4	3 (s, 2H), 7.21
10	7.26 (m, 5H), 7	3H), 6.98-7.08	6.95-7.10 (m, 4	.73 (d, J = 4.6	[-7.47 (m, 12H)
5	38	(m,	E É	Hz,	

Table 166

mp 195-196 C iII NMR (C1X34)		
		mp 195-196 Ն
		111 NMR (CDC33) & 1.44 (t, J = 7.2 Hz, 3H), 3.46 (s, 3H), 3.69 (s, 3H), 3.86 (s, 6H), 4.44(q, J = 7.0 Hz, 2H), 5.15 (s, 2H),
	828-1	5.66 (hrs, 1H), 5.72 (hrs, 1H), 6.27 (s, 1H), 7.01 (s, 2H), 7.13 (s, 1H), 7.38-7.46 (m, 7H)
		IR(KBr) 3485, 2937, 1713, 1580, 1464, 1455, 1407, 1324, 1243, 1123, 1102, 1069, 1014, 763 cm ⁻¹
		mp150-151 °C
		111 NMR (DMSO-da) 8 1.72 (8, 311), 1.76 (8, 311), 1.88 (8, 311), 1.90 (8, 311), 4.55 (d, J = 5.8 Hz, 211), 5.44-5.50 (m, 111),
	98:8: 	6.80-6.97 (m, 8H), 7.81 (brs, 1H), 8.85 (brs, 1H), 9.38 (brs, 1H)
		IR(KBr) 3495, 3293, 1753, 1711, 1429, 1390, 1360, 1242, 1217, 1178, 1143, 781 cm ⁻¹
		mp149-150 °C
	3	1H NMR (DMSO-d6) 5 1.71 (s, 3H), 1.75 (s, 3H), 2.00 (s, 6H), 2.59 (s, 3H), 4.57 (d, J = 6.4 Hz, 2H), 5.42-5.47 (m, 1H),
- 	1.840	6.84.7.13 (m, 8H), 9.13 (brs, 1H), 9.50 (brs, 1H)
		IR(KBr) 3451, 2933, 1612, 1587, 1518, 1472, 1348, 1259, 1211, 1171, 1121, 1087, 969, 872, 835, 813 cm-1
		mp203:204 °C
	:	1H NMR (I)MSO-d6) & 1.87 (e, 3H), 1.89 (e, 3H), 2.31 (e, 3H), 5.09 (e, 2H), 6.80-7.00 (m, 8H), 7.20 (d, J = 7.8 Hz, 2H), 7.39
	1.841	(d, J = 7.8 Hz, 2H), 7.81 (brs, 1H), 8.97 (brs, 1H), 9.38 (brs, 1H)
		IR(KBr) 3491, 3398, 2921, 1611, 1516, 1476, 1259, 1183, 1155, 996, 794 cm ⁻¹
		mp128-129 °C
	9	1H NMR (DMSO-d6) 8 2.01 (9, 6H), 2.34 (8, 3H), 2.63 (8, 3H), 5.12 (8, 2H), 6.85-7.13 (m, 8H), 7.18 (d, J = 7.6 Hz, 2H), 7.36
IR(KBr) 3432, 3305, 1735, 1607, 1523, 1482, 1398, 1360, 1294, 1284, 1179, 1080, 816 cm ⁻¹	1-042	(d, J = 7.6 Hz, 2H), 9.16 (brs, 1H), 9.56 (brs, 1H)
		IR(KBr) 3432, 3305, 1735, 1607, 1523, 1482, 1398, 1360, 1294, 1284, 1179, 1080, 816 cm ⁻¹

Table 167

5

50	45	40	35	30	25	20	15	10	5
1-843	mp203-204 °C 111 NMR (CDCl ₃)	δ 2.66 (в, 3Н 05, 1735, 1607,), 3.13 (s, 3H), 1523, 1482, 13	3.59 (s, 311), 398, 1360, 129	3.76 (s, 311), f. 14, 1284, 1179	5.19 (a, 2H), 6.E	16 (a, 111), 7.1	3-7.69 (m, 11H)	, 8.07
1-844	mp109-110 °C 'H NMR (DMSO-d _u) & 1.36 (t, J = 7.2 Hz, 31!), 2.82 (s, 31!), 3.24 (s, 31!), 3.47 (s, 31!), 3.66 (s, 31!), 3.79 (s, 6H), 4.38 (q, J = 7.0 Hz, 2H), 5.26 (s, 2H), 6.78 (s, 1H), 7.32-7.52 (m, 10!!) IR(KBr) 3432, 2940, 1716, 1579, 1465, 1407, 1366, 1322, 1240, 1179, 1123, 1078, 815, 796 cm.	d _{d.}) & 1.36 (t, · (s, 211), 6.78 (s, 10, 1716, 1579,	J = 7.2 Hz, 3H; 1H), 7.32-7.52 1465, 1407, 13	, 2.82 (s, 3H), ; (m, 10H) 366, 1322, 124	3.24 (e, 3H), 0, 1179, 1123	3.47 (s, 311), 3.0	66 (s, 3H), 3.7 6 cm.¹	9 (s, 6H), 4.38 (q, و =
1.845	mp 113-115 °C 11I NMR (CDCE) & 2.25 (s, 3H), 2.27 (s, 3H), 3.20 (s, 3H), 5.20 (s, 2H), 7.03-7.15 (m, 5H), 7.33-7.51 (m, 9H)) 1R (CHCE) 2925, 1618, 1580, 1521, 1455, 1373, 1314, 1299, 1268, 1174, 1149, 1126, 1018, 970, 874 cm ⁻¹	δ 2.25 (s, 3H) 1618, 1580, 152), 2.27 (s, 3H), 3	3.20 (s, 311), 6	.20 (s, 2H), 7.	03-7.15 (m, 5H), 7.33-7.51 (r	n, 9H))	
1-846	mp 155-157 ℃ ¹ II NMR (CHXI ₃) δ 2.26 (s, 6H), 4.69 (s, 1H), 5.19 (s, 2H), 6.87-6.90 (m, 2H), 7.03-7.16 (m, 5H), 7.22-7.50 (m, 7H) IR (CHCl ₃) 3596, 2952, 2924, 1612, 1582, 1523, 1490, 1455, 1383, 1269, 1171, 1125, 1012, 956, 877 cm ⁻¹	δ 2.26 (s, GH) 2952, 2924, 161	, 4.69 (s, 111), 1 12, 1582, 1523,	5.19 (a, 211), 6 1490, 1455, 1	.87-6.90 (m, 2 425, 1383, 12	(II), 7.03-7.16 (a	m, 5H), 7.22-7	7.50 (m, 7H)	
1.847	mp 81-84 °C IH NMR (CDCl3) Ø 1.07-1.14 (m, 6H), 2.55-2.66 (m, 4H), 4.73 (s, 1H), 5.16 (s, 2H), 5.70 (s, 1H), 6.82-6.91 (m, 3H), 6.92-6.99 (m, 2H), 7.10-7.12 (d, J = 4.2 Hz, 2H), 7.22-7.25 (m, 2H), 7.38-7.49 (m, 5H) IR (CHCl3) 3596, 3542, 2968, 2932, 2872, 1731, 1611, 1588, 1520, 1489, 1455, 1380, 1327, 1289, 1256, 1171, 1126, 1011, 903, 878, 836 cm ⁻¹	δ 1.07-1.14 (r 7.12 (d, J = 4.2 3542, 2968, 29:	n, 6H), 2.56-2. ? Hz, 2H), 7.22. 32, 2872, 1731	66 (m, 4H), 4 7.25 (m, 2H), , 1611, 1588,	.73 (s, 1H), 6. 7.38-7.49 (m, 1520, 1489, 1	16 (s, 2H), 5.7(5H) 1455, 1380, 135	0 (8, 1H), 6.85	2.6.91 (m, 3H), 6, 1171, 1126,	6.92-
1-848	mp 125-127 °C 1H NMR (CDCl ₃) δ 1.77 (s, 3H), 1.82 (s, 3H), 2.26 (s, 3H), 2.28 (s, 3H), 3.20 (s, 3H), 4.63-4.65 (d, J = 6.9 Hz, 2H), 5.56 (m, 1H), 7.02-7.13 (m, 5H), 7.31-7.43 (m, 4H) 1R (CHCl ₃) 2924, 1619, 1578, 1488, 1373, 1298, 1266, 1174, 1149, 1125, 970, 874 cm ⁻¹	δ 1.77 (s, 3H), 5H), 7.31-7.43 619, 1578, 148	(m, 4H) (m, 1398,	2.26 (s, 3H), 2 1266, 1174, 1	28 (e, 3H), 3	20 (s, 3H), 4.63	-4.65 (d, J = (3.9 Hz, 2H), 6.6	6 (m,

Table 168

1.849	mp 141-143 C 41 NMR (CDCl ₃) & 1.07-1.14 (m, 6H), 2.53-2.65 (m, 4H), 3.12 (s, 3H), 3.20 (s, 3H), 5.18 (s, 2H), 7.10-7.14 (m, 3H), 7.24-
	7.27 (m, 211), 7.33-7.50 (m, 9H) IR (CHCh) 2969, 2934, 1614, 1517, 1487, 1371, 1331, 1289, 1263, 1173, 1149, 1111, 970, 938, 872 cm ⁻¹
	mp 90-91 °C '
1-850	1-850 111 NMR (CDCL ₃) 6 2.13 (s, 3H), 2.29 (s, 3H), 2.35 (s, 3H), 3.16 (s, 3H), 5.21 (s, 2H), 6.87-6.90 (m, 2H), 7.09-7.49 (m, 11H)
	118 (CHCh.) 3596, 1731, 1613, 1520, 1478, 1362, 1261, 1173, 1119, 1086, 1025, 972, 953, 874 cm ⁻¹
	mp 94-96 °C
1061	1H NMR (CDC3) 6 1.76-1.77 (d, J = 0.3 Hz, 3H), 1.81-1.82 (d, J = 0.9 Hz, 3H), 2.26 (s, 3H), 2.27 (s, 3H), 4.62-4.64 (d, J =
160:1	6.9 Hz, 211), 4.71 (s, 1H), 5.56 (m, 1H), 6.87-6.91 (m, 2H), 7.00-7.13 (m, 5H), 7.23-7.27 (m, 2H)
	IR (CHCl ₁₃) 3596, 2923, 1675, 1613, 1579, 1523, 1490, 1386, 1297, 1171, 1124, 990, 956, 877, 836 cm ⁻¹
	mp 106-108 ℃
910	111 NMR (CDCl.3) 6 2.63 (s, 311), 3.52 (s, 3H), 3.77 (s, 3H), 5.24 (s, 2H), 6.84 (s, 1H), 6.84 (s, 1H), 7.12-7.20 (m, 3H), 7.35-
700-1	7.50 (m, 7H), 7.56-7.64 (m, 2H)
	IR (KBr) 2935, 1604, 1523, 1483, 1373, 1232, 1086, 1011, 945, 847, 728, 605, 523, 506 cm ⁻¹
	mp 136-138 °C
0401	¹ H NMR (CDCl ₃) 8 1.77 (9, 3H), 1.81 (8, 3H), 2.67 (8, 3H), 3.53 (8, 3H), 3.78 (8, 3H), 4.67 (d, J = 6.9 Hz, 2H), 5.47-5.53 (m,
1-003	1H), 6.84 (s, 1H), 7.10-7.19 (m, 3H), 7.31 (d, J = 2.1 Hz, 1H), 7.38 (dd, J = 2.1, 8.1 Hz, 1H), 7.57-7.64 (m, 2H)
	IR (KBr) 2936, 1604, 1523, 1484, 1435, 1373, 1225, 1086, 1011, 943, 848, 783, 608, 508 cm ⁻¹

Table 169

50	45	40	35	30	25	20	15	10	5
	mp 128-130 °C III NMR (CDC) & 174 (s. 31) 181 (s. 31) 262 (s. 31) 352 (s. 31) 379 (s. 31) 463.467 (m. 91) 545.553 (m. 11)	δ 174 (s. 3)	H 181 (4 3H	9 69 (s. 31D)	3 69 (4, 311), 3	79 (6 311) 46	13.4 67 (m. 91	0 6 45.5 59 (m	Ē
1-854	6.86 (s, 1H), 7.01 (m. 2H)	(dd, J = 2.1 H	z, 8.4 Hz, 111),	, 7.10 (d, J = 1.	8 Hz, 1H), 7.15	3.7.20 (m, 2H),	7.29 (d, J = 8), 7.01 (dd, J = 2.1 Hz, 8.4 Hz, 11l), 7.10 (d, J = 1.8 Hz, 1H), 7.13·7.20 (m, 2H), 7.29 (d, J = 8.4 Hz, 1H), 7.59·7.64	7.64
	IR (KBr) 2940, 1600, 1518, 1484, 1418, 1366, 1232, 1080, 984, 893, 838, 812, 621, 524 cm ⁻¹	300, 1518, 148	4, 1418, 1366,	1232, 1080, 9	84, 893, 838, 8	12, 621, 524 cn	TI		
	mp 141-143 C								
	111 NMR (CDCL) & 1.76 (8, 3H), 1.82 (8, 3H), 2.61 (8, 3H), 3.53 (8, 3H), 3.77 (8, 3H), 4.62 (d, J = 6.9 Hz, 2H), 5.47-5.53 (m,	δ 1.76 (s, 3l	I), 1.82 (s, 3H)), 2.61 (s, 3H),	3.53 (8, 311), 3.	77 (8, 311), 4.6	2 (d, J = 6.9 H)	lz, 2H), 5.47-5.5	3 (m,
1-855	1H), 5.70 (s, 1H), 6.83 (s, 1H), 6.91 (dd, J = 2.1, 8.1 Hz, 1H), 6.96 (d, J = 8.1 Hz, 1H), 7.02 (d, J = 2.1 Hz, 1H), 7.10-7.19 (m,	6.83 (s, 1H), 6	3.91 (dd, J = 2.	1, 8.1 Hz, 1H)	6.96 (d, J = 8)	1 Hz, 1H), 7.03	2 (d, J = 2.1 H)	z, 1H), 7.10-7.1	9 (m,
	2H), 7.59-7.64 (m	, 2Н)							
	IR (KBr) 3531, 2931, 1604, 1520, 1484, 1372, 1233, 1175, 1083, 1011, 814, 800, 781, 727, 526 cm-1	331, 1604, 152	0, 1484, 1372,	1233, 1175, 10	183, 1011, 814,	800, 781, 727,	526 cm ⁻¹		
	mp 217.220 ℃								
020	1H NMR (CDCl ₃) & 2.75 (s, 3H), 3.51 (s, 3H), 3.78 (s, 3H), 5.78 (s, 1H), 6.85 (s, 1H), 7.03 (dd, J = 1.8, 8.4 Hz, 1H), 7.11-	δ 2.75 (s, 3ł	Н), 3.51 (в, 3Н	l), 3.78 (s, 3H)	, 5.78 (s, 1H),	3.85 (s, 1H), 7.	03 (dd, J = 1.	8, 8.4 Hz, 1H),	7.11-
000-1	7.20 (m, 3H), 7.32	I), 7.32 (d, J = 8.4 Hz, 1H), 7.58-7.63 (m, 2H)	z, 1H), 7.58-7.0	33 (m, 211)					
	IR (KBr) 3434, 2941, 1611, 1487, 1423, 1363, 1209, 1076, 891, 818, 621, 573, 513 cm-1	141, 1611, 148	7, 1423, 1363,	1209, 1076, 89	11, 818, 621, 57	'3, 513 cm ⁻¹			
	mp 183⋅185 ℃		!			-			
6	¹ H NMR (CDCl ₃) & 1.92 (s, 3H), 3.20 (s, 3H), 3.53 (s, 3H), 3.78 (s, 3H), 3.93 (s, 3H), 4.31 (s, 4H), 6.79-6.83 (m, 2H), 6.90-	δ 1.92 (s, 3F	t), 3.20 (s, 3H)), 3.53 (s, 3H),	3.78 (s, 3H), 3	.93 (s, 3H), 4.3	1 (s, 4H), 6.7	9-6.83 (m, 2H),	6.90-
/ 00-1	6.94 (m, 2H), 7.16), 7.16-7.41 (m, 12H), 7.66-7.71 (m, 2H),), 7.66-7.71 (m	ı, 2H),					
	IR (KBr) 3030, 2936, 1604, 1517, 1482, 1362, 1232, 1232, 1180, 1120, 1082, 877, 799, 701, 526 cm ⁻¹	36, 1604, 1517	7, 1482, 1362,	1232, 1232, 11	80, 1120, 1082	, 877, 799, 701	, 526 cm ⁻¹		
	mp 192-194 C								
0201	¹ H NMR (CDCl ₃) δ 2.57 (8, 3H), 3.21 (8, 3H), 3.56 (8, 3H), 3.77 (8, 3H), 3.87 (8, 3H), 6.77-6.89 (m, 4H), 7.34-7.40 (m, 2H),	δ 2.57 (s, 3H	I), 3.21 (s, 3H)), 3.56 (s, 3H),	3.77 (s, 3H), 3.	87 (s, 3H), 6.7	7-6.89 (m, 4H), 7.34-7.40 (m,	2H),
000-1	7.67.7.72 (m, 2H)								
	IR (KBr) 3451, 3368, 2937, 1622, 1524, 1481, 1359, 1174, 1149, 1086, 962, 869, 802, 525 cm ⁻¹	68, 2937, 1622	2, 1524, 1481,	1359, 1174, 11	49, 1086, 962,	869, 802, 525	·m·1		

262

Table 170

20 .

	mp 210.212 λ:
	411 NMR (CDCL ₃) & 1.92 (8, 3H), 2.23 (8, 3H), 3.46 (8, 3H), 3.74 (8, 3H), 3.89 (8, 3H), 6.24 (8, 1H), 5.80 (6, 1H), 5.94 (8, 1H),
1.859	6.46 (s, 111), 6.90-6.96 (m, 111), 7.01 (d, J = 1.8 Hz, 114), 7.08 (dd, J = 1.8, 8.1 Hz, 114), 7.50-7.55 (m, 2H), 7.76 (s, 1H), 8.52
	(d, J = 8.1 Hz, 1 H),
	IR (KBr) 3420, 2938, 1636, 1610, 1526, 1496, 1398, 1225, 1164, 1073, 1026, 831 cm ⁻¹
	mp 183-185 °C
	III NMR (1)MSO-d ₆) $\delta = 2.43$ (g, 611), 2.45 (s, 611), 5.13 (s, 211), 6.76-6.82 (m, 4H), 6.91 (dd, $J = 2.1$, 8.4 Hz, 1H), 7.01 (d, $J = 1$) $\delta = 2.1$
098-1	8.4 Hz, 1H), 7.09 (d, J = 2.1 Hz, 1H), 7.31-7.43 (m, 5H), 7.48-7.53 (m, 2H), 9.02 (br s, 1H), 9.32 (br s, 1H)
	IR (KBr) 3600-2800(br), 1609, 1581, 1521, 1493, 1455, 1437, 1384, 1321, 1275, 1215, 1193, 1142, 1007 cm ⁻¹
	mp 172-174 C
	"H NMR (CDCI:) δ 2.50 (s, 6H), 2.53 (s, 6H), 3.11 (s, 3H), 3.19 (s, 3H), 5.18 (s, 2H), 6.89 (s, 1H), 6.93 (s, 1H), 7.12 (d, $J = J = J = J = J = J = J = J = J = J $
198-1	8.4 Hz, 1H), 7.30-7.54 (m, 8H), 7.66-7.71 (m, 2H), 7.73 (d, J = 2.1 Hz, 1H)
	IR (KBr) 3600-2800(br), 1613, 1618, 1491, 1455, 1361, 1348, 1276, 1178, 1159, 1109, 970 cm ⁻¹
	mp 173-175 ℃
	1H NMR (CDCh) 6 1.77 (8, 3H), 1.82 (8, 3H), 2.51 (8, 6H), 2.53 (8, 6H), 3.19 (8, 3H), 3.22 (8, 3H), 4.63 (d, J = 7.2 Hz, 2H),
1.862	5.49-5.53 (m, 1H), 6.89 (s, 1H), 6.93 (s, 1H), 7.05 (d, J = 9.0 Hz, 1H), 7.26-7.36 (m, 2H), 7.51 (dd, J = 1.8, 8.1 Hz, 1H), 7.67-
	7.70 (m, 3H)
	IR (KBr) 3600-2800(br), 1519, 1491, 1363, 1331, 1291, 1257, 1175, 1147, 1105, 1013, 980, 966 cm ⁻¹
	mp 150.152 C
000	¹ H NMR (DMSO-d ₆) δ 1.72 (s, 3H), 1.76 (s, 3H), 2.43 (s, 6H), 2.45 (s, 6H), 4.55 (d, J = 6.6 Hz, 2H), 5.47-5.51 (m, 1H),
1-803	6.78-6.83 (m, 4H), 6.90-7.06 (m, 3H), 7.38-7.42 (m, 2H), 8.87 (br s, 1H), 9.39 (br s, 1H)
	IR (KBr) 3600-2800(br), 1610, 1685, 1522, 1495, 1476, 1448, 1385, 1292, 1275, 1199, 1171, 1136, 985, 948 cm ⁻¹

Table 171

1.864	mp 175-177 °C чн ммк (рмко-d ₆)
-865	IR (KBr) 3600-2800(br), 1582, 1518, 1491, 1454, 1564, 1564, 1576, 1242, 1151, 1141, 1121, 1533, 1555, 1555, 1600 cm. mp 175-177 °C if NMR (CDCl ₃)
998-	mp 180-182 °C 1H NMR (CDCl ₃) & 1.77 (s, 6H), 1.81 (s, 6H), 2.52 (s, 12H), 3.22 (s, 6H), 4.63 (d, J = 6.9 Hz, 2H), 5.49-5.54 (m, 2H), 6.90 (s, 2H), 7.04 (d, J = 8.4 Hz, 2H), 7.50 (dd, J = 2.1, 8.4 Hz, 2H), 7.04 (d, J = 2.1 Hz, 2H) 19 (RR), 3600, 2800/hz), 1520, 1494, 1365, 1274, 1186, 1161, 1113, 996, 973 cm ⁻¹
1-867	mp 165-168 °C 1H NMR (I)MSO-d ₆) δ 1.72 (s, 6H), 1.76 (s, 6H), 2.45 (s, 12H), 4.55 (d, J = 6.0 Hz, 4H), 5.45-5.55 (m, 2H), 6.77 (s, 2H), 6.89-6.98 (m, 4H), 7.03-7.07 (m, 2H), 8.86 (br s, 2H) 1R (KBr) 3600-2800(br), 1579, 1519, 1497, 1476, 1456, 1384, 1277, 1238, 1195, 1142, 1126, 1050, 994 cm ⁻¹
898-1	mp 76-78 °C 1H NMR (CDCl ₃) & 3.47 (s, 3H), 3.75 (s, 3H), 3.94 (s, 3H), 5.15 (s, 2H), 5.68 (s, 1H), 5.69 (s, 1H), 5.92 (s, 1H), 6.46 (s, 1H), 6.93-7.15 (m, 5H), 7.22 (d, J = 1.5 Hz, 1H), 7.34-7.49 (m, 5H) IR (CHCl ₃) 3528, 1586, 1520, 1489, 1461, 1399, 1287, 1260, 1110, 1070, 1010, 907, 819 cm. ¹
-869	mp 140·142 °C 1H NMR (CDCl ₃) δ 2.65 (e, 3H), 3.13 (s, 3H), 3.25 (s, 3H), 3.57 (e, 3H), 3.78 (e, 3H), 3.94 (e, 3H), 5.19 (e, 2H), 6.85 (e, 1H), 7.13·7.19 (m, 2H), 7.30·7.50 (m, 9H) IR (CHCl ₃) 1598, 1516, 1480, 1367, 1266, 1176, 1115, 1081, 1012, 969, 918, 867, 808 cm ⁻¹

Table 172

	mp 189-190 °C:
	111 NMR (CDCE) 3 1.76 (d, J = 0.9 Hz, 3H), 1.81 (s, 3H), 2.69 (s, 3H), 3.24 (s, 3H), 3.26 (s, 3H), 3.58 (s, 3H), 3.78 (s, 3H),
1.870	3.94 (s, 3H), 4.64 (d, J = 6.6 Hz, 2H), 5.49 (m, 1H), 6.85 (s, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.17 (d.d, J = 2.1, 8.4 Hz, 1H),
	7.30-7.42 (m, 4H)
	1R (CHCl ₁₃) 2932, 1599, 1516, 1480, 1367, 1329, 1266, 1177, 1115, 1082, 1032, 1013, 970, 907, 868, 807 cm ⁻¹
	mp 187-190 °C
	111 NMR (CDCl3) 6 2.38 (8, 311), 2.64 (8, 311), 3.13 (8, 311), 3.25 (8, 311), 3.58 (8, 311), 3.78 (8, 311), 3.94 (8, 311), 5.14 (8, 2H),
1.8.	6.84 (s, 111), 7.13-7.24 (m, 411), 7.30-7.42 (m, 611)
	IR (CHCl ₃) 2966, 1598, 1517, 1480, 1462, 1368, 1329, 1267, 1117, 1116, 1082, 1032, 970, 907, 867, 808 cm ⁻¹
	mp 192-194 °C
	1H NMR (CDCl ₃) δ 1.15 (t, $J = 6.9$ Hz, 3H), 1.76 (e, 3H), 1.82 (e, 3H), 2.59 (e, 3H), 3.69 (q, $J = 6.9$ Hz, 2H), 3.77 (e, 3H),
1.872	4.61 (d, J = 6.9 Hz, 2H), 4.99 (s, 1H), 5.50 (m, 1H), 5.70 (s, 1H), 6.84 (s, 1H), 6.88·6.97 (m, 3H), 7.02 (d, J = 1.8 Hz, 1H),
,	7.52.7.58 (m, 2H)
	IR (CHCl ₃) 3536, 2934, 1609, 1520, 1482, 1410, 1365, 1279, 1243, 1172, 1128, 1080, 1029, 972, 952, 872, 833, 812 cm ⁻¹
	1H NMR (CDCl3) 6 3.46 (s, 3H), 3.70 (s, 2H), 3.74 (s, 3H), 3.75 (s, 3H), 5.15 (s, 2H), 5.67 (s, 1H), 5.90 (s, 1H), 6.47 (s, 1H),
1.873	6.96 (d.d., J = 8.4 & 1.8 Hz, 1H), 7.03 (d, J = 8.4 Hz, 1H), 7.09 (d, J = 1.8 Hz, 1H), 7.33 - 7.44 (m, 7H), 7.61 (.d., J = 8.4 Hz, 2H)
	IR (KBr) 3536,3389, 1732, 1587, 1519, 1487, 1438, 1393, 1249, 1217, 1166, 1110, 1069,1001cm ⁻¹
	1H NMR (CDCl3) 6 3.46 (8, 3H), 3.74 (8, 5H), 5.15 (8, 2H), 5.68 (8, 1H), 5.91 (6, 1H), 6.47 (8, 1H), 6.96 (d.d, J=8.4 & 1.8 Hz,
1.874	1H), 7.03 (d, $J = 8.4$ Hz, 1H), 7.09 (d, $J = 8.4$ Hz, 1H), $7.32 \cdot 7.49$ (m, 7H), 7.62 (d, $J = 8.1$ Hz, 2H)
	IR (KBr) 3381, 1715, 1698, 1608, 1581, 1523, 1485, 1455, 1396, 1294, 1235, 1112, 1072,1017cm ⁻¹
	111 NMR (CDCl ₃) 6 2.69 (s, 3H), 3.13 (s, 3H), 3.54 (s, 3H), 3.70 (s, 2H), 3.74 (s, 3H), 3.77 (s, 3H), 5.19 (s, 2H), 6.86 (s, 1H),
1.875	7.15 (d, J = 8.7 Hz, 1H), 7.30 - 7.40 (m, 9H), 7.59 (.d, J = 8.1 Hz, 2H)
	IR (KBr) 1734, 1721, 1606, 1481, 1398, 1361, 1244, 1175, 1120, 1078, 1010cm ⁻¹

Table 173

	2	,	,							
1.876		DCl ₃) δ 1.76 (s, 3H) 6.9Hz, 2H), 5.46 - 5 z, 2H), 7.39 (d, J = DCl ₃) δ	76 (s, 311), 1.), 5.46 - 5.55 (d, J = 2	411 NMR (CDCl ₃) & 1.76 (s, 31I), 1.81 (s, 3H), 2.73 (s, 3H), 3.23 (s,3H), 3.46.4 (d, J = 6.9Hz, 2H), 5.46 · 5.55 (m, 1H), 6.86 (s, 1H), 7.09 (d, J = 8.1Hz, 2H), 7.39 (d, J = 2.1 Hz, 1H), 7.59 (d, J = 8.1Hz, 2H) H NMR (CDCl ₃) &	73 (s, 3H), 3.5 5 (s, 1H), 7.09 9 (d, J = 8.1H	4H NMR (CDCl ₃) & 1.76 (s, 3H), 1.81 (s, 3H), 2.73 (s, 3H), 3.23 (s, 3H), 3.54 (s, 3H), 3.70 (s, 2H), 3.74 (s, 3H), 3.77 (s, 3H), 4.64 (d, J = 6.9Hz, 2H), 5.46 - 5.55 (m, 1H), 6.86 (s, 1H), 7.09 (d, J = 8.4Hz, 1H), 7.35 (d.d, J = 8.4 & 2.1Hz, 1H), 7.37 (d, J = 8.1Hz, 2H), 7.39 (d, J = 2.1 Hz, 1H), 7.59 (d, J = 8.1Hz, 2H) 11 NMR (CDCl ₃) &	3.54 (s, 3H), 3.70 (s, 2H), 3.74 8.4Hz, 1H), 7.35 (d.d, J = 8.4	(a.d, J = 8.4	(s, 311), 3.77 (s, 3H), & 2.1Hz, 1H), 7.37	(s, 3H), H), 7.37
1.877	HI NMR (C	DCla) & 1.7 5.89 (s, 111)	76 (s, 3H), 1.	82 (s, 3H), 3.), 6.96 (s, 2H)	46 (s, 3H), 3.7 7.06 (s, 1H),	111 NMR (CDC13)), 4.62 (d, J = 1.4Hz, 2H), 7.9	6.9 Hz, 2H), 52 (d, J = 8.4	, 5.46 - 5.58 Hz, 2H)	(m, 1H),
-878		DCl ₃)	76 (s, 3H), 1.4 s, 1H), 6.47 (e 34, 1609, 158	32 (s, 311), 3.4 s, 111), 6.96 (s 6, 1520, 1487	6 (s, 3H), 3.7(, 2H), 7.06 (s, , 1439, 1396,	111 NMIR (CDCL ₃) δ 1.76 (s, 311), 1.82 (s, 311), 3.46 (s, 311), 3.70 (s, 211), 3.74 (s, 6H), 4.62 (d, J = 6.9 Hz, 2H), 5.46 - 5.58 (m, 1H), 5.68 (s, 1H), 5.88 (s, 1H), 6.47 (s, 1H), 6.96 (s, 2H), 7.06 (s, 1H), 7.37 (d, J = 8.4 Hz, 2H), 7.61 (d, J = 8.4 Hz, 2H) (RBr) 3527,3386, 1734, 1609, 1586, 1620, 1487, 1439, 1396, 1219, 1167, 1111, 1068,1010 cm ⁻¹	(a, 6H), 4.62 J = 8.4 Hz, 2 111, 1068,10	(d, J = 6.9 Hz H), 7.61 (d, J 10 cm ⁻¹	., 2H), 5.46 - = 8.4 Hz, 2H	5.58 (m, I)
-879	mp 136-139 'H NMR (CI 6.7 Hz, 2H), J = 2.1 Hz, 1 IR (KBr) 356		(br s, 1H), 1 , 5.49 (t, J = 1 J = 8.1 Hz, 2 81, 1389, 136	DCl ₃) & 1.7 (br s, 1H), 1.76 (s, 3H), 1.81 (s, 3H), 2.7 (4.78 (s, 2H), 5.49 (t, J = 6.8 Hz, 1H), 6.87 (s, 1H), 7.61 (H), 7.47 (d, J = 8.1 Hz, 2H), 7.64 (d, J = 8.1 Hz, 2H), 7.63 (d, J = 8.1 Hz, 2H), 7.64 (d, J = 8.1 Hz, 2H),	.81 (s, 3H), 2. .87 (s, 1H), 7 = 8.1 Hz, 2H 5, 1084, 1011,	np 136-139 °C ¹ H NMR (CDCl ₃) δ 1.7 (br s, 1H), 1.76 (s, 3H), 1.81 (s, 3H), 2.73 (s, 3H), 3.23 (s, 3H), 3.53 (s, 3H), 3.78 (s, 3H), 4.64 (d, J = 6.7 Hz, 2H), 4.78 (s, 2H), 5.49 (t, J = 6.8 Hz, 1H), 6.87 (s, 1H), 7.09 (d, J = 8.6 Hz, 1H), 7.35 (dd, J = 8.6, 2.1 Hz, 1H), 7.40 (d, J = 2.1 Hz, 1H), 7.47 (d, J = 8.1 Hz, 2H), 7.64 (d, J = 8.1 Hz, 2H) ¹ H (KBr) 3553, 3434, 1481, 1389, 1363, 1235, 1175, 1084, 1011, 972, 806 cm ⁻¹	.3 (s, 3H), 3.5 Hz, 1H), 7.36	3 (s, 3H), 3.78	8 (s, 3H), 4.6 2.1 Hz, 1H),	4 (d, J = 7.40 (d,
-880	mp 180-181 'H NMR (CI 2H), 5.53 (t, 211), 7.65 (d, 118), 7.65	C DCl ₃) & 1.70 (t J = 6.9 Hz, 1H), J = 8.4 Hz, 2H) 99, 3367, 1522,	70 (br s, 1H), 1H), 5.69 (s, 2H)	1.76 (s, 3H), 1H), 5.89 (s, 1	, 1.82 (s, 3H), 1H), 6.47 (s, 1	mp 180-181 °C 1H NMR (CDCl ₃) & 1.70 (br s, 1H), 1.76 (s, 3H), 1.82 (s, 3H), 3.46 (s, 3H), 3.75 (s, 3H), 4.62 (d, J = 6.9 Hz, 2H), 4.77 (s, 2H), 5.53 (t, J = 6.9 Hz, 1H), 5.89 (s, 1H), 6.47 (s, 1H), 6.94-6.96 (m, 2H), 7.05-7.07 (m, 1H), 7.46 (d, J = 8.1 Hz, 2H), 7.65 (d, J = 8.4 Hz, 2H) 111, 7.65 (d, J = 8.4 Hz, 2H) 111, 7.65 (d, J = 8.4 Hz, 2H) 111, 7.65 (d, J = 8.4 Hz, 2H)	3.75 (s, 3H), (m, 2H), 7.05	4.62 (d, J = (7.07 (m, 1H))	6.9 Hz, 2H), , 7.46 (d, J = n ^{.1}	8.1 Hz,

Table 174

mp 122-123 °C 111 NMR (CIDCl ₃) 6 1.77 (a, 31l), 1.82 (s, 3H), 2.34 (t, J = 6.5 Hz, 1H), 3.22 (a, 3H), 3.45 (a, 3H), 3.45 (a, 3H), 3.73 (a, J = 6.6 Hz, 2H), 5.66 (t, J = 6.6 Hz, 1H), 6.84 (a, 1H), 6.99-7.10 (m, 3H), 7.39 (d, J = 8.7 Hz, 2H), 2H) 2H) 1H (KIB) 3579, 1518, 1471, 1360, 1261, 1230, 1148, 1019, 966, 881, 843 cm ⁻¹ mp 156-158 °C 111 NMR (CIDCl ₃) 6 1.76 (a, 3H), 1.81 (a, 3H), 2.49 (t, J = 6.6 Hz, 1H), 3.44 (a, 3H), 3.72 (a, 3H), 4.49 (br 5.4), 5.04 (a, 1H), 5.55 (t, J = 6.7 Hz, 1H), 6.85 (a, 1H), 6.92 (d, J = 8.9 Hz, 2H), 6.98-7.10 (m, 3H), 2H) 1R (KIB) 3433, 3234, 1609, 1520, 1472, 1266, 1227, 994, 836 cm ⁻¹ mp 168-170 °C 1R (KIB) 3433, 3234, 1609, 1520, 1472, 1266, 1227, 994, 836 cm ⁻¹ mp 163-170 °C 1R (KIB) 3544, 3412, 3267, 1613, 1521, 1475, 1263, 1229, 1011, 884, 816 cm ⁻¹ mp 163-164 °C 1R (KIB) 3448, 2962, 2938, 1738, 1634, 1639, 1619, 1486, 1319, 1250, 1153, 1115, 1071, 1011 cm ⁻¹ mp 181-82 °C 1R (KIB) 3448, 2962, 2938, 1738, 1637, 1604, 1689, 1619, 1486, 1319, 1250, 1153, 1115, 1071, 1011 cm ⁻¹ mp 181-82 °C 1R (KIB) 3448, 2962, 2938, 1738, 1654, 189, 1619, 1486, 1319, 1250, 1153, 1115, 1071, 1011 cm ⁻¹ mp 181-82 °C 1R (KIB) 3448, 2962, 2938, 1738, 1654 (a, 3H), 1.77 (a, 3H), 1.77 (a, 3H), 7.35-74 (m, 3H), 7.55-74 (m,		
		mp 122-123 C
2H) IR (KBr) 35 mp 156-158 iii NMR (C 6.7 Hz, 2H) 2H) IR (KBr) 34 mp 168-170 iii NMR (C 6.24 (L, J = 6		111 NMR (CDCl3) 6 1.77 (s, 3H), 1.82 (s, 3H), 2.34 (t, J = 6.5 Hz, 1H), 3.22 (s, 3H), 3.45 (s, 3H), 3.73 (s, 3H), 4.5 (m, 2H),
	1.881	4.64 (d, J = 6.6 Hz, 2H), 5.56 (t, J = 6.6 Hz, 1H), 6.84 (s, 1H), 6.99.7.10 (m, 3H), 7.39 (d, J = 8.7 Hz, 2H), 7.71 (d, J = 8.7 Hz,
		2H)
		IR (KBr) 3579, 1518, 1471, 1360, 1261, 1230, 1148, 1019, 966, 881, 843 cm ⁻¹
		mp 156-158 C
6.7 Hz, 2H 2H) IR (KBr) 3 mp 168-17 "H NMR (6 6.24 (L, J = IR (KBr) 3 mp 153-15 "H NMR (6 7.93 (d, J = IR (KBr) 3 mp 81-82 " "H NMR (6 4.38 (d, J = IR (KBr) 3		111 NMR (CDCh) 5 1.76 (a, 311), 1.81 (a, 311), 2.49 (t, J = 6.6 Hz, 1H), 3.44 (a, 3H), 3.72 (a, 3H), 4.49 (br a, 2H), 4.63 (d, J =
	1-882	6.7 Hz, 211), 5.04 (s, 1H), 5.55 (t, $J = 6.7 Hz$, 1H), 6.85 (s, 1H), 6.92 (d, $J = 8.9 Hz$, 2H), $6.98.7.10$ (m, 3H), 7.53 (d, $J = 8.9 Hz$,
		2H)
		IR (KBr) 3433, 3234, 1609, 1520, 1472, 1266, 1227, 994, 836 cm ⁻¹
		mp 168-170 ℃
<u> </u>	,	1H NMR (CDCI ₃) 6 2.50 (t, J = 6.5 Hz, 1H), 3.44 (s, 3H), 3.73 (s, 3H), 4.49 (br s, 2H), 4.78 (d, J = 6.1 Hz, 2H), 5.06 (s, 1H),
	1.883	6.24 (t, J = 6.1 Hz, 1H), 6.85 (s, 1H), 6.93 (d, J = 8.6 Hz, 2H), 6.97.7.13 (m, 3H), 7.53 (d, J = 8.6 Hz, 2H)
		IR (KBr) 3544, 3412, 3267, 1613, 1621, 1475, 1263, 1229, 1011, 884, 816 cm ⁻¹
		mp163-164 C
		1H NMR (CDCl ₃) δ 3.49 (s, 3H), 3.77 (s, 3H), 5.17 (s, 2H), 5.76 (brs, 2H), 6.45 (s, 1H), 6.91-7.07 (m, 3H), 7.26-7.45 (m, 5H),
	1-584	7.93 (d, J = 8.2 Hz, 2H), 8.00 (brs, 1H), 8.27 (d, J = 8.4 Hz, 2H)
		IR(KBr) 3448, 2962, 2938, 1738, 1627, 1604, 1589, 1519, 1486, 1319, 1250, 1153, 1115, 1071, 1011 cm ⁻¹
		mp81-82 ℃
4.38 (d, J =	1	1H NMR (CDCl ₃) 6 1.51 (8, 3H), 1.54 (8, 3H), 1.74 (8, 3H), 1.77 (8, 3H), 2.70 (8, 3H), 3.24 (8, 3H), 3.60 (8, 3H), 3.78 (8, 3H),
- m- 201 600 600 1000 1111 1111 1000 1201 1001 10	1.885 1	4.38 (d, J = 7.5 Hz, 2H), 4.65 (d, J = 6.6 Hz, 2H), 6.86 (e, 1H), 7.06-7.11 (m, 3H), 7.35-7.41 (m, 2H), 7.52-7.57 (m, 1H)
1K(KBF) 3433, 2936, 1039, 1016, 1021, 1301, 1203, 1116, 1119, 1001, 312, 320, 310, 100 cm.		IR(KBr) 3433, 2938, 1699, 1618, 1521, 1481, 1367, 1209, 1178, 1115, 1081, 972, 950, 813, 793 cm ⁻¹

Table 175

	mp208-209 Ն
	1H NMR (CDCh) 5 1.77 (s, 3H), 1.81 (s, 3H), 2.71 (s, 3H), 3.23 (s, 3H), 3.60 (s, 3H), 3.76 (s, 3H), 4.64 (d, J = 7.2 Hz, 2H),
J-886	5.49 (t, J = 8.7 Hz, 1H), 6.85 (s, 1H), 7.09 (d, J = 8.7 Hz, 1H), 7.26-7.40 (m, 3H), 7.52-7.58 (m, 1H), 7.69-7.73 (m, 1H), 8.02
	(brs.1fl)
	IR(KBr) 3357, 2939, 1736, 1606, 1523, 1483, 1398, 1370, 1294, 1243, 1179, 1111, 1079, 965, 827, 814, 795 cm ⁻¹
	mp89-90 ℃
t c	111 NMR (CDCl ₃) δ 2.34 (8, 311), 2.38 (8, 311), 2.64 (8, 311), 3.12 (8, 311), 3.53 (8, 3H), 3.77 (8, 3H), 4.92 (8, 2H), 5.14 (8, 2H),
1-88/	6.83 (s, 1H), 6.89 (d, J = 8.7 Hz, 2H), 7.11-7.46 (m, 12H)
	IR(KBr) 3434, 2939, 1699, 1617, 1520, 1481, 1367, 1211, 1178, 1114, 1081, 952, 813, 794 cm ⁻¹
	mp181-182 ℃
	¹ H NMR (CDCl ₃) δ 2.38 (s, 3H), 2.66 (s, 3H), 3.12 (s, 3H), 3.59 (s, 3H), 3.76 (s, 3H), 5.14 (s, 2H), 6.85 (s, 1H), 7.14-7.41 (m,
1-888	8H), 7.52-7.58 (m, 1H), 7.69-7.73 (m, 1H), 8.02 (brs, 1H)
	IR(KBr) 3348, 3030, 2940, 1733, 1607, 1523, 1482, 1397, 1366, 1281, 1242, 1212, 1179, 1128, 1112, 1080, 971, 944, 815,
	799 cm ^{.1}
	mp165-157 C
0001	1H NMR (CDCl ₃) δ 1.46 (t, J = 7.0 Hz, 3H), 1.76 (s, 3H), 1.82 (s, 3H), 2.73 (s, 3H), 3.23 (s, 3H), 3.56 (s, 3H), 3.74 (s, 3H),
1-003	4.46 (q, J = 7.4 Hz, 2H), 4.65 (d, J = 7.2 Hz, 2H), 5.48-5.54 (m, 1H), 6.69 (s, 1H), 7.09 (d, J = 8.4 Hz, 2H), 7.28-7.47 (m, 4H)
	IR(KBr) 3434, 2938, 1716, 1579, 1477, 1464, 1409, 1366, 1241, 1178, 1124, 1078, 955, 815, 796 cm ⁻¹
	mp82.83 ℃
0001	1H NMR (CDCl ₃) 6 2.67 (8, 3H), 3.13 (8, 3H), 3.58 (8, 3H), 3.80 (8, 3H), 5.19 (8, 2H), 6.84 (8, 1H), 7.13·7.49 (m, 8H), 7.89-
069-1	7.96 (m, 2H), 8.27 (brs, 1H), 8.27-8.31 (m, 1H)
	IR(KBr) 3447, 3033, 2940, 1743, 1521, 1482, 1367, 1312, 1272, 1249, 1178, 1119, 1080, 957, 817, 799 cm ⁻¹

Table 176

.

1.891	mp86-87 ℃ III NMR (СПСІ ₃)
	IR(KBr) 3413, 2938, 1519, 1483, 1366, 1313, 1162, 1119, 1090, 1079, 957, 812 cm. ¹ mp97-98 °C
1-892	4.62 (d, J = 6.8 Hz, 211), 5.65 (brs, 111), 5.72 (brs, 111), 6.84 (s, 111), 7.04-7.13 (m, 311), 7.35-7.43 (m, 2H), 7.51-7.58 (m, 1H) IR(KBr) 3453, 3379, 2973, 2931, 1719, 1629, 1529, 1490, 1406, 1313, 1288, 1247, 1193, 1101, 1072, 1015, 993, 816, 786
	L. Wo
	mp89.90 °C
1-893	6.33 (a, 111), 6.34-6.47 (m, 211), 6.74 (brs, 211), 6.74-6.75 (m, 111), 6.87-6.91 (m, 111), 7.11-7.12 (m, 114), 7.32-7.34 (m, 114),
	IR(KBr) 3424, 2933, 2614, 1719, 1625, 1585, 1523, 1488, 1408, 1287, 1247, 1125, 1070, 819, 788 cm ¹
	mp167-168 ℃
200	1H NMR (CDCl ₃) 6 2.31 (s, 3H), 2.38 (s, 3H), 3.52 (s, 3H), 3.76 (s, 3H), 4.91 (s, 2H), 5.13 (s, 2H), 5.65 (brs, 1H), 5.77 (brs,
1-694	1H), 6.85 (s, 1H), 6.84-6.93 (m, 2H), 7.10-7.44 (m, 12H)
	IR(KBr) 3425, 2933, 2614, 1719, 1625, 1585, 1522, 1488, 1408, 1287, 1247, 1125 cm ⁻¹
	mp93.94 °C
	¹ H NMR (DMSO-d ₆) δ 2.11 (e, 3H), 3.34 (e, 3H), 3.62 (e, 3H), 5.10 (e, 2H), 6.32 (e, 2H), 6.41-6.49 (m, 2H), 6.65 (d, $J = 9.3$
1.895	Hz, 1H), 6.78 (g, 1H), 6.95 (d, J = 8.7 Hz, 1H), 7.09-7.14 (m, 1H), 7.22 (d, J = 8.4 Hz, 2H), 7.41 (d, J = 8.1 Hz, 2H), 8.49 (brs,
	1H), 8.87 (brs, 1H)
	IR(KBr) 3424, 2932, 1717, 1626, 1585, 1523, 1488, 1409, 1248, 1125, 1106, 1070, 811, 793 cm ⁻¹

Table 177

5	
10	
15	
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55

	mp149-150 ℃
300	111 NMR (1)MSO-d ₆) δ 1.72 (8, 311), 1.77 (8, 311), 3.32 (8, 311), 3.55 (8, 311), 3.76 (8, 611), 4.55 (d, $J = 6.3$ Hz, 211), 5.50 (t, $J = 6.3$ Hz, 212), 5.50 (t, $J = 6.3$ Hz, 213), 5.
1-890 0 (8-1	6.6 Hz, 1H), 6.15 (s, 1H), 6.68 (d, J = 2.1 Hz, 1H), 6.91 (d, J = 8.7 Hz, 1H), 7.30 (s, 2H), 8.41 (brs, 1H), 8.74 (brs, 1H)
	IR(KBr) 3423, 2936, 1694, 1578, 1459, 1410, 1319, 1229, 1126, 1067 cm ⁻¹
	mp107.108 C
5	111 NMIR (CDCIs) \$\delta\$ 2.70 (8, 3H), 3.12 (8, 3H), 3.55 (8, 3H), 3.72 (8, 3H), 3.78 (8, 6H), 5.18 (8, 2H), 6.65 (8, 1H), 6.70 (d, J =
/69-1	4.2 Hz, 1H), 7.14 (d, $J = 8.4$ Hz, 1H), 7.26-7.48 (m, 9H)
	IR(KBr) 3434, 2941, 1517, 1488, 1366, 1353, 1261, 1177, 1102, 1074, 844, 818, 796 cm ⁻¹
	powder
000	1H NMR (CDCl ₃) δ 1.63 (s, 3H), 1.70 (s, 3H), 3.48 (s, 3H), 3.73-3.76 (m, 7H), 3.87 (s, 3H), 4.98 (s, 1H), 5.24-5.32 (m, 2H),
1.030	5.90 (s, 1H), 6.47 (s, 1H), 6.89-7.02 (m, 5H), 7.51-7.57 (m, 2H)
	IR (KBr) 3447, 2930, 1612, 1523, 1488, 1455, 1398, 1230, 1120, 1080, 1037, 818, 592 cm ⁻¹
	mp 171-173 °C
900	1H NMR (CDCl ₃) & 1.73 (s, 3H), 1.76 (s, 3H), 3.48 (s, 3H), 3.73-3.76 (m, 5H), 4.23 (s, 1H), 4.92 (s, 1H), 5.37-5.43 (m, 1H),
1.899	5.84 (s, 1H), 6.46 (s, 1H), 6.70 (d, J = 8.1 Hz, 1H), 6.86-7.01 (m, 5H), 7.51-7.56 (m, 2H)
	IR (KBr) 3392, 2934, 1612, 1526, 1489, 1398, 1222, 1116, 1075, 829, 590 cm ⁻¹
	mp 78-79 ℃
000	1H NMR (CDCl ₃) δ 2.14 (8, 3H), 2.29 (8, 3H), 2.36 (8, 3H), 3.16 (8, 3H), 3.20 (8, 3H), 5.22 (8, 2H), 7.10 (8, 1H), 7.16 (d, J=
006-1	8.7 Hz, 1H), 7.22-7.49 (m, 11H)
	IR (CHCl ₃) 2939, 1612, 1516, 1476, 1415, 1370, 1291, 1269, 1174, 1160, 1119, 1087, 1018, 971, 954, 873 cm ⁻¹

Table 178

	mp 114-116 C
1.901	3H), 4.62-4.65 (d, J = 6.6 Hz, 2H), 5.52 (m, 1H), 7.04-7.13 (m, 2H), 7.23-7.26 (m, 2H), 7.32-7.42 (m, 6H) IR (CHCha) 2970, 2934, 2874, 1674, 1614, 1572, 1517, 1487, 1415, 1370, 1331, 1288, 1262, 1172, 1149, 1109, 971, 937, 872,
	849 cm· ¹
1.902	111), 5.54 (m, 111), 5.77 (s, 111), 7.24-7.64 (m, 411), 6.97 (d, J = 2.1 Hz, 111), 7.10-7.12 (d, J = 5.7 Hz, 211), 7.23-7.26 (m, 211)
	IR (CHCl ₃) 3596, 3537, 2969, 2933, 27873, 1675, 1612, 1586, 1520, 1489, 1385, 1327, 1290, 1267, 1171, 1125, 996, 903, 877,
	836 cm ⁻¹
	mp 69-71 °C;
	1H NMR (CI)CL ₃) δ 1.78 (s, 3H), 1.82 (s, 3H), 2.15 (s, 3H), 2.30 (s, 3H), 2.43 (s, 3H), 2.43 (e, 3H), 3.24 (s, 3H), 3.27 (s, 3H),
1.903	4.64-4.67 (d, J = 6.9 Hz, 2H), 5.50 (s, 2H), 7.10-7.13 (d, J = 9.9 Hz, 2H), 7.23-7.29 (m, 2H), 7.34-7.42 (m, 5H)
	IR (CHCh.) 2939, 1612, 1516, 1476, 1415, 1370, 1331, 1290, 1268, 1174, 1160, 1119, 1086, 971, 954, 873 cm.
	mp 125-127 °C
3	¹ H NMR (CDCl ₃) δ 2.27 (8, 6H), 3.91 (8, 3H), 4.88 (br, 1H), 5.20 (8, 2H), 6.83-6.96 (m, 5H), 7.12-7.13 (d, J = 4.5 Hz, 2H),
1.904	7.22-7.50 (m, 7H)
	IR (CHCl ₃) 3596, 2957, 2936, 1611, 1586, 1522, 1490, 1464, 1454, 1326, 1257, 1172, 1138, 1033, 835 cm ⁻¹
	mp 145-146 C
	¹ H NMR (CDCl ₃) δ 2.26 (8, 3H), 2.28 (8, 3H), 3.20 (8, 3H), 3.91 (8, 3H), 5.21 (8, 2H), 6.83 (dd, J = 8.1, 2.1 Hz, 1H), 6.91-
906-1	6.96 (m, 2H), 7.11 (s, 1H), 7.15 (s, 1H), 7.32-7.50 (m, 9H)
	IR (CHCl ₃) 2938, 1604, 1584, 1519, 1488, 1464, 1454, 1373, 1330, 1260, 1175, 1149, 1033, 1018, 970, 873, 847 cm ⁻¹

Table 179

1-906	mp 132-134 °C "II NMR (CDCl ₃)
1.907	mp 181-182 ℃ 11 NMR (CDCl ₃) δ 1.77 (s, 3H), 1.82 (s, 3H), 2.13 (s, 3H), 2.30 (s, 3H), 2.35 (s, 3H), 4.61-4.64 (d, J = 6.9 Hz, 2H), 5.37 (s, 1H), 5.51 (m, 1H), 5.78 (s, 1H), 6.81 (dd, J = 8.1, 2.1 Hz, 1H), 6.86-6.97 (m, 3H), 7.08 (s, 1H), 7.19-7.22 (m, 2H), 7.26 (s, 1H) HR (CHCl ₃) 3595, 3536, 2936, 1613, 1587, 1519, 1479, 1453, 1359, 1330, 1279, 1246, 1173, 1127, 1085, 1024, 974, 960, 881, 867 cm ⁻¹
1-908	
606-1	mp 170-172 °C 1H NMR (DMSO-dc) δ 1.72 (s, 3H), 1.76 (s, 3H), 3.31 (s, 3H), 3.63 (s, 3H), 4.54 (d, J = 6.5 Hz, 2H), 5.17 (s, 2H), 5.49 (t, J = 6.5 Hz, 1H), 6.36 (s, 1H), 6.63 (d, J = 8.4 Hz, 2H), 6.63 (dd, J = 8.4, 2.1 Hz, 1H), 6.72 (d, J = 2.1 Hz, 1H), 6.88 (d, J = 8.4 Hz, 1H), 7.31 (d, J = 8.4 Hz, 2H), 8.40 (s, 1H), 8.70 (s, 1H) 1R (KBr) 3416, 3329, 1614, 1523, 1489, 1408, 1242, 1219, 1115, 1070, 997, 817, 787 cm ⁻¹

Table 180

	mp 207-209 °C mp 207-209 °C mp 2 69 (e. 311), 3.52 (e. 311), 3.77 (e. 311), 5.18 (e, 211), 6.56 (e, 1H), 6.85 (e, 1H),
016-1	III NMIC (CDCIa) 0 1.54 (8, 511), 2.55 (8, 511), 5.12 (8, 511), 5.12 (8, 511), 5.12 (8, 511), 5.12 (8, 511), 5.13 (8, 511), 5.14 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.15 (8, 511), 5.
	7.14 (d, J = 8.7 Hz, 1H), 1.32-1.40 (m, 311), 1.01 (d, b = 0.1 state = 0.1 sta
	IR (KBr) 3373, 1734, 1525, 1369, 1227, 1177, 1158, 1080, 816, 793 cm.
	mp 214-216 °C
	11 NMR (1)MSO- d_6) δ 2.84 (8, 311), 3.33 (8, 311), 3.46 (8, 311), 3.75 (8, 311), 5.26 (8, 2H), 5.30 (8, 2H), 6.66 (9, $J = 8$.) I_{12}
<u>e</u>	211), 6.93 (e, 111), 7.24-7.45 (m, 811), 7.52 (m, 211)
	IR (KBr) 3468, 3386, 1604, 1523, 1482, 1392, 1361, 1175, 1085, 815 cm ⁻¹
	mp 215-218 C
	1H NMR (CDCl3) 6 2.67 (8, 3H), 3.13 (8, 3H), 3.53 (8, 3H), 3.78 (8, 3H), 5.19 (8, 2H), 6.86 (8, 1H), 7.15 (d, J = 8.4 Hz, 1H),
1.912	7.32-7.48 (m, 7H), 7.69 (s, 4H), 8.02 (br s, 1H)
	IR (KBr) 3307, 1733, 1482, 1393, 1361, 1284, 1177, 1084, 1012, 967, 945, 816 cm ⁻¹
	mp 203-205 ℃
	111 NMR (CDCL) 5 1.77 (s, 3H), 1.81 (s, 3H), 2.71 (s, 3H), 3.24 (s, 3H), 3.54 (s, 3H), 3.79 (s, 3H), 4.64 (d, J = 6.8 Hz, 2H),
1.913	5.50 (t, J = 6.8 Hz, 1H), 6.86 (s, 1H), 7.09 (d, J = 8.4 Hz, 1H), 7.35 (dd, J = 8.4, 2.0 Hz, 1H), 7.39 (d, J = 2.0 Hz, 1H), 7.69 (s,
	4H), 8.01 (br s, 1H)
	IR (KBr) 3311, 1735, 1482, 1393, 1362, 1177, 1083, 976, 945, 818 cm ⁻¹
	J. 201-107
	1H NMR (CDCl3) & 1.76 (8, 3H), 1.80, (8, 3H), 2.27 (8, 3H), 2.29 (6, 3H), 3.20 (8, 3H), 3.89 (8, 3H), 4.63-4.60 (0, J = 0.0 112,
1.914	2H), 5.57 (m, 1H), 6.87-6.96 (m, 3H), 7.12 (s, 1H), 7.17 (s, 1H), 7.33-7.43 (m, 4H)
	IR (CHCI:) 2937, 2866, 1604, 1583, 1519, 1488, 1464, 1373, 1331, 1259, 1175, 1149, 1035, 379, 673 cm

Table 181

	mp 164-165 °C 41.75-1.76 (d, J = 0.6 Hz, 311), 1.79-1.80 (d, J = 0.9 Hz, 3H), 2.27 (s, 3H), 2.28 (s, 3H), 3.89 (s, 3H),
1.915	4.62-4.65 (d, J = 6.6 Hz, 2II), 4.78 (br, 11I), 5.57 (m, 11I), 6.86-6.96 (m, 4H), 7.12 (s, 1H), 7.15 (s, 1H), 7.22-7.27 (m, 3H)
	IR (CHCL) 3596, 2936, 2865, 1676, 1611, 1584, 1522, 1490, 1464, 1385, 1327, 1257, 1172, 1138, 1100, 1035, 996, 952, 896
	835 cm ⁻¹
	mp172.173 ℃
	111 NMR (CDCl ₃) & 1.72 (s, 311), 1.77 (s, 611), 1.81 (s, 311), 2.70 (s, 311), 3.11 (s, 311), 3.24 (s, 311), 3.67 (s, 3H), 3.80 (s, 3H),
1.916	4.06-4.27 (m, 2H), 4.64 (d, J = 7.2 Hz, 2H), 5.37-5.50 (m, 2H), 6.85 (e, 1H), 7.10 (d, J = 8.6 Hz, 1H), 7.32-7.39 (m, 2H), 7.62
	(d, J = 8.4 Hz, 1H), 7.84 (d, J = 9.6 Hz, 1H), 7.94 (s, 1H)
	IR(KBr) 3434, 1519, 1482, 1366, 1346, 1308, 1178, 1157, 1120, 1090, 1078, 957, 805 cm ⁻¹
	mp78-80 °C
	1H NMR (CDCl3) & 3.47 (8, 3H), 3.69 (8, 6H), 3.80 (8, 6H), 5.14 (8, 2H), 5.66 (brs, 1H), 5.76 (brs, 1H), 6.30 (8, 1H), 6.69 (d,
1.917	J = 8.2 Hz, 2H), 7.02 (s, 2H), 7.14 (s, 1H), 7.34-7.46 (m, 6H)
	IR(KBr) 3443, 2935, 1614, 1587, 1517, 1470, 1250, 1110, 744 cm ⁻¹
	mp83-84 °C
9.01	1H NMR (DMSO-dg) & 3.34 (8, 3H), 3.72 (8, 3H), 5.13 (8, 2H), 5.72 (brs, 2H), 6.41 (8, 1H), 6.62-6.93 (m, 4H), 7.32-7.61 (m,
1.918	7H), 8.54 (brs, 1H), 8.88 (brs, 1H)
	IR(KBr) 3398, 2936, 1731, 1633, 1586, 1521, 1489, 1455, 1432, 1402, 1291, 1216, 1112, 1071 cm ⁻¹
	mp74-75 ℃
0101	1H NMR (CDCl ₉) § 2.02 (8, 6H), 3.11 (8, 3H), 3.21 (8, 3H), 5.02 (brs, 1H), 5.18 (8, 2H), 6.96 (8, 1H), 7.04-7.18 (m, 3H),
1-919	7.37.7.59 (m, 9H)
	IR(KBr) 3503, 3032, 2937, 1513, 1474, 1365, 1289, 1197, 1175, 1149, 1114, 970, 867, 811 cm ⁻¹

Table 182

076-1	mp78-79 °C III NMR (CDCl ₃) δ 1.73 (s, 311), 1.78 (s, 611), 1.83 (s, 311), 3.11 (s, 311), 3.48 (s, 311), 3.77 (s, 311), 4.07-4.29 (m, 211), 4.64 (d, 4) = 6.8 Hz, 211), 5.41-5.55 (m, 211), 5.73 (s, 111), 5.82 (s, 111), 6.47 (s, 111), 6.94-7.05 (m, 311), 7.53 (d, J = 8.0 Hz, 111), 7.86 (d, J = 8.6 Hz, 111), 8.00 (s, 111)R(KBr) 3449, 2971, 2935, 1519, 1489, 1424, 1338, 1310, 1226, 1152, 1117, 1070, 1059, 773 cm ⁻¹
1.921	mp 176-177 °C 111 NMR (CDCl ₃)
1.922	mp 170-172 C 2H, A.60 (t, J = 4.5 Hz, 1H), A.67 (d, J = 5.7 Hz, 2H), A.60 (t, J = 4.5 Hz, 1H), A.67 (d, J = 5.7 Hz, 2H), A.60 (d, J = 5.7 Hz, 1H), G.93 (s, 1H), 7.04 (d, J = 8.4 Hz, 1H), 7.14 (dd, J = 8.4, 2.3 Hz, 1H), 7.28-7.37 (m, 2H), 7.40-7.45 (m, 4H), 7.49-7.53 (m, 2H), 7.61 (d, J = 8.1 Hz, 2H) 1R (KBr) 3322, 1462, 1385, 1228, 1037, 1006, 750, 700 cm ⁻¹
1.923	mp 130-132 °C ¹ HI NMR (CDCl ₃) δ 1.55 (s, 9H), 1.62 (s, 3H), 2.30 (s, 12H), 3.00 (s, 6H), 6.73 (br s, 1H), 6.78-6.82 (m, 2H), 7.07-7.14 (m, 4H), 7.24-7.27(m, 2H), 8.07-8.13 (m, 2H) ¹ HI NMR (CDCl ₃) δ 1.55 (s, 9H), 1.62 (s, 3H), 2.30 (s, 12H), 3.00 (s, 6H), 6.73 (br s, 1H), 6.78-6.82 (m, 2H), 7.07-7.14 (m, 4H), 7.24-7.27(m, 2H), 8.07-8.13 (m, 2H) ¹ HI (KBr) 3600-2800(br), 1732, 1624, 1610, 1583, 1530, 1493, 1366, 1347, 1320, 1236, 1154 cm ⁻¹
1.924	mp 104-106 °C 1H NMR (CDCl ₃) δ 2.27 (s, 3H), 2.30 (s, 3H), 3.00 (s, 6H), 3.74 (br s, 2H), 6.77-6.85 (m, 3H), 6.96 (dd, J = 1.8, 8.1 Hz, 1H), 7.03 (dd, J = 2.1, 12.0 Hz, 1H), 7.09 (s, 1H), 7.13 (s, 1H), 7.24-7.29 (m, 2H) 1R (KBr) 3600-2800(br), 1631, 1608, 1680, 1530, 1487, 1436, 1363, 1233, 1195 cm ⁻¹

Table 183

5 10 15 20 26 30	mp 100-102 °C ¹ H NMR (CDCla) & 1.75 (d, J = 0.6 Hz, 3H), 1.78 (d, J = 0.6 Hz, 3H), 2.29 (s, 3H), 2.30 (s, 3H), 3.00 (s, 6H), 3.77 (d, J = 6.6 Hz, 2H), 3.87 (br s, 2H), 5.37-5.40 (m, 1H), 6.71-6.83 (m, 3H), 7.00-7.03 (m, 2H), 7.11 (s, 1H), 7.13 (s, 1H), 7.25-7.29 (m, 2H)) 2H) R (KR) 3600.28000kr) '1623 1610 1629 1430 1441 1348 1328 1952 1950 1150 1005 2.21	1) °C 1)	mp 154-156 °C ¹ H NMR (CDCl ₃) δ 1.94 (d, J = 1.2 Hz, 3H), 2.26 (d, J = 1.2 Hz, 3H), 2.27 (s, 3H), 2.31 (s, 3H), 3.00 (s, 6H), 5.79-5.80 (m, 1H), 6.78-6.82 (m, 3H), 7.09-7.16 (m, 4H), 7.16-7.24 (m, 2H), 8.38-8.44 (m, 1H) IR (KBr) 3600-28000hr), 1681, 1665, 1643, 1610, 1528, 1506, 1487, 1442, 1359, 1317, 1237, 1198, 1159 cm ⁻¹	mp 183-185 ℃ ¹ H NMR (CDCl ₃) δ 1.44 (t, J = 7.5 Hz, 3H), 2.27 (s, 3H), 2.31 (s, 3H), 3.16-3.23 (m, 2H), 6.53 (d, J = 2.4 Hz, 1H), 6.78-6.82 (m, 2H), 7.09 (s, 1H), 7.14-7.18 (m, 3H), 7.24-7.27 (m, 3H), 7.69-7.65 (m, 1H) ¹ IR (KBr) 3600-2800(br), 1607, 1627, 1491, 1461, 1461, 1436, 1336, 1271, 1222, 1163, 1110 cm ⁻¹	mp 184-186 °C ¹ H NMR (CDCl ₃) δ 2.26 (s, 3H), 2.32 (s, 3H), 3.01 (s, 6H), 6.78-6.83 (m, 2H), 7.10 (s, 1H), 7.18 (s, 1H), 7.23-7.27 (m, 1H), 7.65 (dd, J = 1.8, 8.1 Hz, 1H), 7.70 (d, J = 2.1 Hz, 1H), 8.19-8.24 (m, 1H)
35 40	1.75 (d, J = 0.6 Hz, 3H), 1 2H), 5.37-5.40 (m, 1H), 6.73) °C :DCl ₃)	1.94 (d, J = 1.2 Hz, 3H), 2), 7.09-7.16 (m, 4H), 7.16-7 or), 1681, 1665, 1643, 1610.	1.44 (t, J = 7.5 Hz, 3H), 2 1H), 7.14-7.18 (m, 3H), 7.2· r), 1607, 1627, 1491, 1461,	mp 184-186 °C ¹ H NMR (CDCl ₃)
45	mp 100-102 °C ¹ H NMR (CDCl ₃) δ ¹ Hz, 2H), 3.87 (br s, 2 2H) ¹ H (KBr) 3600.28000	mp 178-180 °C ¹ H NMR (CDCl ₃) δ 8.12 (br s, 1H), 8.27-8 IR (KBr) 3600-2800(b.	mp 154-156 °C ¹ H NMR (CDCl ₃) δ ¹ H), 6.78-6.82 (m, 3H) ¹ R (KB ₇) 3600-2800(b	mp 183-185 °C 1H NMR (CDCl ₃) δ 6.82 (m, 2H), 7.09 (s, 1R (KBr) 3600-2800(b	mp 184-186 °C ¹ H NMR (CDCl ₃) δ 7.65 (dd, J = 1.8, 8.1 F
50	1-925	1-926	1.927	1-928	1.929

276

Table 184

	mp 212-215 C
0::6:1	H NMR (DMSO-da) δ 2.83 (a, 311), 3.43 (a, 311), 3.45 (a, 311), 3.52 (a, 311), 3.79 (a, 311), 4.87 (a, 211), 7.08 (a, 111), 7.21 (d, J = 8.4 Hz. 111), 7.27 ~7.32 (m, 2H), 7.48 (d, J = 8.7 Hz, 2H)
	IR (Nujol) 1731, 1604, 1519, 1480, 1237, 1174, 1081, 1013, 876, 839, 822, 804 cm ⁻¹
	mp 166-168C
	11 NMR (CDCB) 8 3.45 (8, 3H), 3.75 (8, 3H), 4.67 (d, J = 9.0 Hz, 2H), 6.45 (8, 1H), 6.78 (t, J = 9.0 Hz, 1H), 6.92 (d, J = 8.7
E	11z, 211), 6.92 (d, J = 8.4 Hz, 111), 6.98 (dd, J = 8.4, 2.1 Hz, 111), 7.09 (d, J = 2.1 Hz, 111), 7.53 (d, J = 8.7 Hz, 211)
	IR (Nujol) 3399, 1611, 1588, 1523, 1488, 1460, 1224, 1113, 1070, 1012, 939, 825, 813, 795 cm ⁻¹
	foam
	1H NMR (CDCl3) δ 3.45 (s, 3H), 3.75 (s, 3H), 4.64~4.74 (m, 3H), 6.45 (s, 1H), 6.92 (d, $J = 8.7$ Hz, 2H), 6.93 (d, $J = 8.4$, Hz,
1.932	111), 6.97 (dd, J = 8.4, 2.1 Hz, 1H), 7.08 (d, J = 2.1 Hz, 1H), 7.53 (d, J = 8.7 Hz, 2H)
	IR (Nujol) 3570, 3461, 3357, 3180, 1753, 1616, 1696, 1624, 1495, 1408, 1313, 1287, 1264, 1240, 1200, 1114, 1073, 1011,
	906, 825 cm ⁻¹
	mp 120-123 ℃
	111 NMR (CDCl ₃) δ 1.69 (8, 3H), 1.74 (8, 6H), 1.80 (8, 3H), 3.49 (8, 3H), 6.68-3.75 (m, 5H), 4.58 (d, J = 6.6 Hz, 2H), 5.31-
- 1-933 - 1-933	5.41 (m, 1H), 5.50-5.56 (m, 1H), 5.81 (s, 1H), 6.46 (s, 1H), 6.68-6.74 (m, 2H), 6.85-6.93 (m, 3H), 7.50-7.56 (m, 2H)
	IR (KBr) 3460, 2969, 2929, 1609, 1523, 1490, 1398, 1247, 1117, 1078, 1013, 824, 778, 708, 589 cm ⁻¹
	mp 171-173 ℃
	¹ H NMR (CI)Cl ₃) δ 1.75 (8, 3H), 1.80 (8, 3H), 3.47 (8, 3H), 3.73 (8, 3H), 3.81 (8, 2H), 4.58 (d, J = 6.9 Hz, 2H), 5.50-5.57 (m, ϵ
1.934	1H), 5.82 (s, 1H), 6.44 (s, 1H), 6.77-6.94 (m, 5H), 7.50-7.55 (m, 2H)
	IR (KBr) 3382, 3320, 2929, 1613, 1523, 1490, 1405, 1262, 1221, 1120, 1067, 1011, 844, 818, 598 cm ⁻¹

Table 185

5	.H), 5.48-5.54 , 1H), 9.56 (6,	= 7.5 Hz, 2H), 1), 7.01 (t, J =	: 6.3 Hz, 1H),), 4.66 (d, J =	, 5.65 (s, 1H),
10	J = 7.2 Hz, 5, 1H), 8.96 (6, 596 cm. ¹	= 8.7 Hz, 2F = 8.3 E.7 E.2F = 832 cm ⁻¹), 6.24 (t, J = r, 2H)), 3.24 (s, 3H	, 6.14 (s, 2H)
15	3H), 4.64 (d, 1H), 8.58 (s 15, 1010, 82	, 3.74 (s, 3H 1), 6.91 (d, J 77, 1008, 94	, 6.04 (s, 1H (d, J = 8.7 Hz)	, 3.23 (s, 3H = 8.1 Hz, 2H	5.13 (s, 2H) П ст.¹
20	3H), 3.64 (s, 3, 2H), 7.85 (s, 28, 1225, 11	H), 6.66 (s, 11), 6.33, 1111, 10	, 5.05 (s, 1H) m, 2H), 7.53 (3267, 1231, 1	i, 2.47 (s, 3H) i), 7.60 (d, J : cm ¹	, 4.79 (s, 2H), 5 (m, 6H) 69, 1061, 10
25	3H), 3.30 (s, 37.42.7.46 (m)), 1.80 (s, 3H) 52-5.60 (m, 11 1369, 1265, 11	= 6.3 Hz, 2H)), 7.19-7.30 (1403, 1301, 13), 2.17 (s, 3H) J = 8.7 Hz, 2F 117, 974, 857	, 3.81 (s, 6H), 1H), 7.40-7.4 239, 1125, 10
30	311), 2.08 (s, 7.03 (m, 2H), 1542, 1520,), 1.76 (s, 3H) 8 (m, 1H), 5.4 7 Hz, 2H) 1441, 1403,], 4.77 (d, J : = 8.7 Hz, 1H 1490, 1453,), 2.10 (s, 3H) 4H), 7.40 (d, 4	2H), 7.14 (s, 1407, 1285, 1
35	11 °C DMSO-d ₆)	0 % (CDCl ₃) δ 1.48 (s, 3H), 1.67 (s, 3H), 1.76 (s, 3H), 1.80 (s, 3H), 3.63 (s, 3H), 3.74 (s, 3H), 4.27 (d, J = 7.5 Hz, 2H), 1.6.6 (s, 1H), 5.01 (s, 1H), 5.20-5.28 (m, 1H), 5.52-5.60 (m, 1H), 6.66 (s, 1H), 6.91 (d, J = 8.7 Hz, 2H), 7.01 (t, J = 1), 7.10-7.22 (m, 2H), 7.48 (d, J = 8.7 Hz, 2H)	23 °C CDCl ₃)	4 °C CDCl ₃)	l), 3.48 (s, 3H), , 2H), 7.01 (s,
40	(a) 0 1.74 (s, 1), 6.80-6.87 (1), 0.322, 293	8 1.48 (s, 3H 2H), 5.01 (s, .22 (m, 2H), '	δ 3.44 (s, 3ŀ l, J = 8.7 Hz, ι2, 3237, 296(δ 1.79 (s, 3F .55 (m, 1H), ' 5, 1613, 1472	6 3.47 (s, 3H 3, 1H), 6.69 (e 7, 1720, 1582
45	mp 220-221 °C 11 NMR (I)MSO-dc) δ 1.74 (s, 3H), 1.77 (s, 3H), 2.08 (s, 3H), 3.30 (s, 3H), 3.64 (e, 3H), 4.64 (d, J = 7.2 Hz, 2H), 5.48-5.54 (m, 1H), 6.40 (s, 1H), 6.80-6.87 (m, 2H), 6.93-7.03 (m, 2H), 7.42-7.46 (m, 2H), 7.85 (s, 1H), 8.58 (s, 1H), 8.96 (s, 1H), 9.56 (s, 1H) 1H) 1R (KBr) 3476, 3400, 3322, 2935, 1658, 1610, 1542, 1520, 1487, 1270, 1258, 1225, 1115, 1010, 825, 596 cm ⁻¹	mp 149-150 °C. 11 NMR (CDCL ₃)	mp 122-123 °C ¹ H NMR (CDCl ₃)	mp143·144 °C 1H NMR (CDCl ₃)	mp80-81 °C 1H NMR (CDCl ₃)
50	m 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-	II. 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	m 14 15 16.1	1.938 6.1	I.939 5.

Table 186

1.940	mp71-72 °C ¹ H NMR (CDCH ₃) δ 1.76 (s, 3H), 1.81 (s, 3H), 2.73 (s, 3H), 3.21 (s, 3H), 3.55 (s, 3H), 3.72 (s, 3H), 3.78 (s, 6H), 4.63 (d, J = 6.8 Hz, 2H), 5.46-5.52 (m, 1H), 6.65 (s, 1H), 6.70 (d, J = 3.8 Hz, 2H), 7.07 (d, J = 8.4 Hz, 1H), 7.34-7.46 (m, 3H) ¹ H(KBr) 3433, 2938, 1674, 1609, 1587, 1518, 14732, 1365, 1252, 1178, 1109, 1077, 971, 945, 815, 796 cm ⁻¹
1.941	mp98-99 °C III NMR (CDCl ₃) & 1.74 (s, 3H), 1.78 (s, 3H), 3.50 (s, 3H), 3.71 (s, 3H), 3.72 (d, J = 8.1 Hz, 2H), 5.35 (t, J = 7.2 Hz, 1H), 5.64 (s, 1H), 5.77 (s, 1H), 6.43 (s, 1H), 7.02-7.15 (m, 3H), 7.32-7.41 (m, 2H), 7.49-7.56 (m, 1H) IR(KBr) 3408, 2934, 1627, 1529, 1491, 1444, 1405, 1246, 1175, 1102, 1069, 822, 783 cm ⁻¹
1.942	1H NMR (CDCL ₁) δ 1.77 (s, 3H), 1.82 (s, 3H), 2.68 (s, 3H), 2.73 (s, 3H), 3.26 (s, 3H), 3.60 (s, 3H), 3.81 (s, 3H), 4.65 (d, J = 6.3 Hz, 2H), 5.44 · 5.53 (m, 1H), 6.87 (s, 1H), 7.10 (d, J = 8.7 Hz, 1H), 7.30 · 7.47 (m, 3H), 7.84 (d.d, J = 7.8 & 2.1 Hz, 1H), 8.22 (d, J = 2.1Hz, 1H) 8.22 (d, J = 2.1Hz, 1H) IR (KBr) 1530, 1480, 1362, 1272, 1237, 1179, 1077cm ⁻¹
1.943	¹ H NMR (CDCl ₃) δ 2.69 (8, 3H), 3.12 (8, 3H), 3.77 (8, 3H), 3.77 (8, 3H), 3.84 (8, 2H), 5.18 (8, 2H), 6.82 (8, 1H), 6.84 (d, J = 8.1 Hz, 1H), 7.14 (.d, J = 8.4 Hz, 1H), 7.21 · 7.50 (m, 9H) [1] (KBr) 3466,3377, 1634, 1583, 1525, 1488, 1461, 1400, 1288, 1245, 1196, 1105,1069cm ⁻¹
1.944	= 12.3 & 1.8H
1.945	1.945 (6.97 (8, 1H), 7.04 - 7.12 (m, 1H), 7.31 - 7.52 (m, 9H), 6.20 (8, 3H), 6.81 - 6.86(m, 1H), 6.93 (d.d., J = 10.7 & 2.1Hz, 1H), 1.945 (8, 1H), 7.04 - 7.12 (m, 1H), 7.31 - 7.52 (m, 9H) 1.945 (8, 1H), 7.04 - 7.12 (m, 1H), 7.31 - 7.52 (m, 9H) 1.8 (KBr) 1513, 1468, 1362, 1295, 1264, 1227, 1193, 1171, 1151, 1003,965cm. ¹

Table 187

	5	9	5	0	5	o	5	0
	1H NMR (CDCla) 6 2.02 (8, 6H), 2.15 (8, 3H), 3.20 (8, 3H), 5.14 (4, J = 3.9 Hz, 1H), 6.81 · 6.86 (m, 1H), 6.91 (d.d, J = 10.1 &	δ 2.02 (s, 6H),	2.15 (s, 3H),	3.20 (s, 3H), 5.	14 (d, J = 3.9 Hz	, 1H), 6.81 · 6.8	36 (m, 1H), 6.	.91 (d.d, J = 10
1.946	2.1 Hz, 11l), 6.97 (s, 11l), 7.04 - 7.12 (m, 11l), 7.30 - 7.42 (m, 41l)	4, 111), 7.04 - 7.	12 (m, 1H), 7.	30 - 7.42 (m, 4	H)	7		
	1R (KRr) 3414, 1624, 1595, 1518, 1473, 1360, 1294, 1170, 1144, 1120, 1104, 1010cm	24, 1595, 1518, \$ 1.77 (a. 311)	1 89 (8 311)	2.02 (8.6H) 2	4, 1120, 1104, 1 16 (8.3H), 3.20	(8, 3H), 4.64 (c	I, J = 6.6Hz,	2H), 5.53-5.6
1.947	111), 6.82 - 7.09 (m, 411), 7.33 (d, J = 9.011z, 211), 7.39 (d, J = 9.0 Hz, 211)	, 411), 7.33 (d, J	= 9.0Hz, 2H	(4.7.39 (d, J = 9)	.0 Hz, 2H)			
	IR (KBr) 1514, 1468, 1376, 1294, 1262, 1175, 1152,992,968cm 1	18, 1376, 1294,	1262, 1175, 1	152,992,968cn	1.1			
	111 NMR (CDCl ₃) δ 1.77 (8, 311), 1.82 (8, 311), 2.02 (8, 611), 2.17 (8, 311), 4.64 (d, $J = 6.6$ Hz, 211), 4.81 (8, 1H), 5.52 · 5.60 (m,	δ 1.77 (в, 3И),	1.82 (8, 311), 3	2.02 (a, GH), 2.	17 (s, 311), 4.64 ((d, J = 6.6Hz, 2	11), 4.81 (8, 1	IH), 6.52 · 5.60
1.948	1H), 6.82-7.08 (m, 6H), 7.22 (.d, $J = 8.7$ Hz, 2H)	6II), 7.22 (.d, J	= 8.7Hz, 2H)					
	IR (KBr) 3568,3417, 1613, 1517, 1471, 1287, 1261, 1230, 1192, 1132, 1102, 1001cm-1	7, 1613, 1517, 1	1471, 1287, 13	261, 1230, 119	2, 1132, 1102, 10	301cm ⁻¹		
	1H NMR (CDCl3) 5 3.02 (s, GH), 3.46 (s, 3H), 3.75 (s, 3H), 5.18 (s, 2H), 6.03 (s, 1H), 6.47 (s, 1H), 6.82 (d, J = 8.7 Hz, 2H).	δ 3.02 (s, GH),	3.46 (s, 3H),	3.75 (s, 3H), 6	.18 (s, 2H), 6.03	(B, 1H), 6.47 (s, 1H), 6.82 (d, J = 8.7 Hz,
1.949	$7.03 \cdot 7.51$ (m, 8H), 7.55 (.d, $J = 8.7$ Hz, 2H)	, 7.55 (.d, J = 8.	7 Hz, 211)					
	IR (KBr) 3502, 1604, 1527, 1488, 1359, 1267, 1233, 1198, 1110, 1070cm ⁻¹	14, 1527, 1488,	1359, 1267, 1	233, 1198, 111	0, 1070cm ⁻¹			
	1H NMR (CDC13) 6 2.60 (s, 3H), 3.03 (s, 6H), 3.54 (s, 3H), 3.76 (s, 3H), 5.21 (s, 2H), 6.80 (d, J = 8.7 Hz, 2H), 6.86 (s,	δ 2.60 (s, 3H)	, 3.03 (s, 6H), 3.54 (s, 3H),	3.76 (s, 3H), 5	.21 (s, 2H), 6.{	30 (d, J = 8.7	7 Hz, 2H), 6.8
1.950	1H), 7.03 · 7.49 (m, 8H), 7.54 (d, J = 8.7 Hz, 2H)	8H), 7.54 (.d, J	= 8.7 Hz, 2H	<u>-</u>				
	IR (KBr) 1602, 1530, 1483, 1444, 1395, 1366, 1233, 1179, 1078, 1015cm ⁻¹	30, 1483, 1444,	1395, 1366, 1	233, 1179, 107	8, 1015cm ⁻¹			
	1H NMR (CDC13) & 2.76 (9, 3H), 3.02 (8, 6H), 3.54 (8, 3H), 3.76 (9, 3H), 5.28 (8, 1H), 6.81 (d, J =	δ 2.76 (s, 3H),	3.02 (s, 6H),	3.54 (s, 3H), 3.	76 (s, 3H), 5.28	(s, 1H), 6.81 (d		9.0Hz, 2H), 6.86 (s, 1H),
1.951	$7.04 \cdot 7.23 \text{ (m, 3H)}, 7.54 \text{ (d, J} = 9.0\text{Hz, 2H)}$, 7.54 (d, J = 9.0	0Hz, 2H)					
	IR (KBr) 3375, 1607, 1530, 1483, 1395, 1346, 1292, 1228, 1163, 1077, 1009cm ⁻¹	77, 1530, 1483,	1395, 1346, 1	292, 1228, 116	3, 1077, 1009cm	1.1		
	111 NMR (CDCH ₃) & 1.76 (8, 3H), 1.80 (8, 3H), 2.71 (8, 3H), 3.02 (8, 6H), 3.55 (8, 3H), 3.76 (8, 3H), 4.63 (d, J = 6.9 Hz, 2H),	δ 1.76 (s, 3H),	1.80 (s, 3H),	2.71 (8, 3H), 3	.02 (s, 6H), 3.55	(e, 3H), 3.76 (s, 3H), 4.63 (d, J = 6.9 Hz,
1.952	5.49 · 5.57 (m, 1H), 6.82 (.d, J = 8.7 Hz, 2H), 6.86 (s, 1H), 7.01 · 7.23 (m, 3H), 7.54 (d, J = 8.7 Hz, 2H)	6.82 (d, J = 8)	7 Hz, 2H), 6.	86 (a, 1H), 7.0	l - 7.23 (m, 3H),	7.54 (d, J = 8.7	' Hz, 2H)	
	IR (KBr) 1602, 1531, 1484, 1389, 1369, 1258, 1235, 1197, 1176, 1084cm ⁻¹	31, 1484, 1389,	1369, 1258, 1	235, 1197, 117	'6, 1084cm ⁻¹			

Table 188

5

	1H NMR (CDCH ₃) & 1.76 (s, 3H), 1.80 (s, 3H), 3.02 (e, 6H), 3.47 (s, 3H), 3.75 (s, 3H), 4.63 (d, J = 6.9 Hz, 2H), 5.51 - 5.60 (m,
1.953	1.953 111), 6.03 (s, 111), 6.47 (s, 111), 6.82 (.d, J = 8.7 11z, 211), 6.99 - 7.08 (m, 111), 7.16 - 7.29 (m, 211), 7.55 (d, J = 8.7 11z, 2H)
	IR (KBr) 3498, 1604, 1528, 1488, 1360, 1266, 1234, 1198, 1110, 1067cm
	111 NMR (CDCt.1) & 3.02 (8, 6H), 3.47 (8, 3H), 3.75 (8, 3H), 5.14 (8, 1H), 6.03 (8, 1H), 6.47 (8, 1H), 6.82 (d, J = 9.0Hz, 2H),
1.954	$7.02 \cdot 7.09 \text{ (m, 1H), } 7.15 \cdot 7.29 \text{ (m, 2H), } 7.55 \text{ (d, } J = 9.0 \text{Hz, 2H)}$
	IR (KBr) 3492,3383, 1607, 1629, 1488, 1397, 1223, 1103, 1065, 1006cm ⁻¹
	111 NMR (CDCl ₃) & 2.01 (s, 6H), 2.17 (s, 3H), 4.75 (s, 1H), 5.19 (s, 2H), 6.83 · 7.15(m, 7H), 7.30 · 7.53 (m, 6H)
1-955	IR (KBr) 3542, 1607, 1579, 1513, 1469, 1263, 1126, 1107, 1015cm ⁻¹
	¹ H NMR (CDCl ₃) δ 1.76 (8, 3H), 1.82 (8, 3H), 2.66 (8, 3H), 3.50 (8, 3H), 3.77 (8, 3H), 4.62 (d, $J = 6.4$ Hz, 2H), 5.48 · 5.56 (m,
	111), 5.71 (8, 111), 5.81 (8, 111), 5.47 (8, 111), 6.90 - 7.00 (m, 211), 7.04 (d, J = 1.8 Hz, 111), 7.42 (.d, J = 7.8 Hz, 211), 7.82 (d.d, J
1-956	= 7.8 & 1.8Hz, 1H), 8.26(.d, J = 1.5 Hz, 1H)
	IR (KBr) 3520,3419, 1585, 1529, 1506, 1344, 1313, 1290, 1251, 1226, 1118, 1079cm ⁻¹
	111 NMR (CDCh ₃) δ 1.75 (a, 311), 1.78 (d, J = 0.9 Hz, 311), 3.47 (s, 311), 3.75 (s, 3H), 3.87 (s, 3H), 3.88 (s, 3H), 4.63 (d, J = 6.6)
1.957	Hz, 2H), 5.57 (m, 1H), 5.92 (s, 1H), 6.47 (s, 1H), 6.95-7.40 (m, 5H), 7.56-7.62 (m, 2H)
	IR (CHCl ₃) 3510, 2934, 1608, 1519, 1489, 1461, 1394, 1285, 1243, 1175, 1115, 1075, 1034, 1008, 926, 823 cm ⁻¹
	mp 163-164 C
	1H NM18 (CDCI3) & 1.75 (8, 3H), 1.78 (8, 3H), 3.61 (8, 3H), 3.65 (8, 3H), 3.75 (8, 3H), 3.88 (8, 3H), 4.64 (d, J = 6.6 Hz, 2H),
1.958	4.99 (s, 1H), 5.58 (m, 1H), 6.68 (s, 1H), 6.88-6.98 (m, 5H), 7.46-7.52 (m, 2H)
	IR (CHCl ₃) 3592, 2934, 1610, 1517, 1461, 1387, 1237, 1171, 1136, 1111, 1084, 1036, 1012, 830 cm ⁻¹

Table 189

1.959	mp 142-146 °C 11 NMR (CDCl ₃)
096-1	mp 141-145 °C ¹ H NMR (CDCl ₃)
1.961	mp 152-154 °C 1H NMR (CDCl ₃)
1-962	mp 150-151 °C: 1H NMR (CDCl ₃)
1-963	mp 93-94 °C 1H NMR (CDCl ₃) δ 2.27 (8, 3H), 4.76-4.79 (d, J = 6.0 Hz, 2H), 5.12 (br, 1H), 6.24 (t, J = 6.0 Hz, 1H), 6.88-7.15 (m, 7H), 7.22-7.26 (m, 2H) IR (CHCl ₃) 3596, 2925, 2867, 1613, 1583, 1523, 1490, 1458, 1424, 1388, 1258, 1171, 1126, 1100, 1022, 956, 886, 836 cm ⁻¹

Table 190

1.96.1	foam 111 NMR (CDCR3) & 3.47 (8, 311), 3.74 (8, 311), 5.06 (8, 111), 6.15 (8, 211), 5.70 (8, 111), 6.94 (8, 111), 6.46 (8, 111), 6.81-7.50 (m,
	12H) IR (CHCh.) 3534, 1609, 1587, 1518, 1504, 1482, 1463, 1465, 1407, 1322, 1290, 1249, 1200, 1112, 1072, 1011 cm ⁻¹
	form III NMR (CDCL.) 6 3.61 (8, 3H), 3.75 (8, 3H), 5.16 (8, 2H), 5.72 (8, 2H), 6.46 (8, 1H), 6.83 (9, 1H), 6.94 (dd, J = 2.0, 8.4 Hz,
1-900	111), 7.00-7.12 (m, 411), 7.29-7.50 (m, 711) IR (CHCL ₁₎ 3531, 1587, 1516, 1498, 1482, 1462, 1455, 1410, 1362, 1308, 1288, 1248, 1202, 1121, 1092, 1070, 1006 cm ⁻¹
	mp 174·175 °C III NMR (CDCl.)
996-1	1.8, 8.4 Hz, 1H), 7.04 (d, J = 8.4 Hz, 1H), 7.11 (d, J = 1.8 Hz, 1H), 7.22-7.49 (m, 9H) 1R (KBr) 3516, 3398, 1587, 1516, 1500, 1484, 1453, 1412, 1306, 1285, 1247, 1231, 1202, 1126, 1101, 1072, 1019, 769, 737
	cm.1
1.967	mp 103-104 °C 1H NMR (CDCh) & 2.26 (s, 6H), 4.61-4.78 (m, 311), 4.84 (s, 1H), 6.84-6.92 (m, 2H), 6.97-7.16 (m, 5H), 7.21-7.27 (m, 2H)
	IR (KBr) 3409, 1742, 1523, 1489, 1315, 1295, 1269, 1231, 1206, 1193, 1124, 1001, 834, 815 cm ⁻¹
	mp 90-91 °C
250	"H NMR (CDCI.) δ 1.77 (8, 6H), 1.82 (d, J = 0.9 Hz, 6H), 2.27 (8, 6H), 4.56 (d, J = 6.6 Hz, 2H), 5.13 (d, J = 6.6 Hz, ZH),
006-1	5.49-5.60 (m, 211), 6.94-7.00 (m, 2H), 7.01-7.14 (m, 5H), 7.26-7.31 (m, 2H)
	IR (KBr) 1608, 1522, 1488, 1378, 1299, 1288, 1273, 1259, 1242, 1196, 1176, 1014, 831, 811, 776 cm.

0	5	o	5	o	5	0	5 .	0	
696-1	mp 200-203 °C III NMR (CDC13)	i 2.00 (s, 3H), 2. 86-6.90 (m, 2H), 7, 1721, 1651, 15	.25 (s, 311), 3 7.04-7.14 (r 523, 1489, 13	. 46 (s, 3H), 3.7 n, 3H), 7.47-7.8 198, 1264, 1228	3 (s, 3H), 3.8 52 (m, 2H) 5, 1136, 1071	3 (s, 311), 5.25 1035, 927, 82	(a, 1H), 6.01-0 3, 530 cm ⁻¹	5.03 (m, 1H), 6.	06 (s,
.970	mp 157-160 °C 111 NMR (CDCl3)	, 1.74 (s. 3H), 1 5.82 (s. 1H), 6.46 1, 1611, 1523, 14	.80 (s, 3H), 5 (s, 1H), 6.66 90, 1397, 12	2.86 (s, 3H), 3. 6 (d, J = 2.1 Hs 42, 1216, 1112	49 (a, 3H), 3. 7, 1H), 6.73 (a	75 (s, 3H), 4.5' 1d, J = 2.1, 8.1 .592 cm.1	7 (d, J = 6.6 F IIz, 1H), 6.80	1z, 2H), 6.08 (s, 6-6.94 (m, 3H),	1H), 7.50.
1-971	mp 153-155 °C 111 NMR (CDCL3)	J 1.77 (s, 3H), 1 J = 6.9 Hz, 1H) Hz, 2H), 7.69 (d	.82 (s, 3H), ; , 6.73 (s, 1H I, J = 8.9 Hz, 75, 1151, 1C	2.10 (s, 3H), 3), 7.06 (d, J = 8 , 2H)	20 (s, 3H), 3. 3.4 Hz, 1H), 7	21 (s, 3H), 3.3 ⁽	6 (s, 3H), 3.71 4, 2.1 Hz, 1H)	(e, 3H), 4.63 (c, 7.23 (d, J = 2.	1, J =
-972	amorphous 1H NMR (CDCl3) & 1.77 (8, 3H), 1.82 (8, 3H), 2.43 (s, 3H), 3.44 (6, 3H), 3.71 (s, 3H), 4.49 (d, J = 9.9 Hz, 2H), 4.62 (d, J = 6.6 Hz, 2H), 4.72 (d, J = 7.2 Hz, 2H), 5.53 (t, J = 6.6 Hz, 1H), 6.86 (s, 1H), 6.96 (d, J = 8.7 Hz, 1H), 7.21-7.30 (m, 4H), 7.54 (d, J = 8.1 Hz, 2H) 8.1 Hz, 2H) IR (KBr) 3599, 1463, 1386, 1081, 1007 cm ⁻¹	7.2 Hz, 2H), 1. 7.1 Hz, 2H), 5.5	82 (s, 3H), 2 i3 (t, J = 6.6	.43 (s, 3H), 3.4 Hz, 1H), 6.86 (4 (s, 3H), 3.7 s, 1H), 6.96 (1 (s, 3H), 4.49 d, J = 8.7 Hz, 1	(d, J = 9.9 Hz,	(m, 4H), 7.54 (a, J = 6.6

Table 191

' Table 192

	mp 83-86 ℃
	111), 4.52 (d, J = 5.4 Hz, 211), 4.52-4.60 (m, 411), 4.89 (t, J = 5.6 Hz, 1H), 5.22 (t, J = 5.9 Hz, 1H), 5.48 (t, J = 6.6 Hz, 1H), 6.92
1-973	(s, 111), 6.96 (d, J = 8.6 Hz, 111), 7.12 (dd, J = 8.6, 1.5 Hz, 1H), 7.26 (d, J = 1.5 Hz, 1H), 7.42 (d, J = 8.0 Hz, 2H), 7.61 (d, J =
	8.0 Hz, 2H)
	IR (KBr) 3399, 1464, 1386, 1230, 1005 cm ⁻¹
	mp 177-179 C
	1H NMR (CDCl ₃) & 1.31 (d, J = 6.9 Hz, 6H), 2.70 (s, 3H), 2.98 (sept, J = 6.9 Hz, 1H), 3.12 (s, 3H), 3.54 (s, 3H), 3.76 (s, 3H),
1.974	5.19 (s, 211), 6.87 (s, 1H), 7.15 (d, J = 8.4 Hz, 1H), 7.30-7.49 (m, 9H), 7.54 (d, J = 7.8 Hz, 2H)
	IR (KBr) 1512, 1480, 1369, 1176, 1084, 1014, 813, 798 cm ⁻¹
	mp 180-182 C
	1H NMR (CDCl ₁) 6 1.31 (d, J = 6.6 Hz, 6H), 1.76 (8, 3H), 1.81 (8, 3H), 2.74 (8, 3H), 2.98 (sept, J = 6.6 Hz, 1H), 3.22 (8, 3H),
1.975	3.54 (s, 311), 3.77 (s, 311), 4.63 (d, $J = 6.7 \text{ Hz}$, 2H), 5.49 (t, $J = 6.7 \text{ Hz}$, 1H), 6.87 (s, 1H), 7.08 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4 \text{ Hz}$, 1H), 7.31 (d, $J = 8.4$
	8.1 Hz, 2H), 7.35 (dd, J = 8.4, 2.1 Hz, 1H), 7.40 (d, J = 2.1 Hz, 1H), 7.54 (d, J = 8.1 Hz, 2H)
	IR(KBr) 1520, 1481, 1366, 1177, 1083, 1012, 975, 944, 815, 797 cm ⁻¹
	mp 125-126 C
	1H NMR (CDCl3) 6 1.31 (d, J = 6.9 Hz, 6H), 1.76 (s, 3H), 1.82 (s, 3H), 2.97 (sept, J = 6.9 Hz, 1H), 3.46 (s, 3H), 3.74 (s, 3H),
1.976	4.61 (d, J = 7.1 Hz, 2H), 5.53 (t, J = 7.1 Hz, 1H), 5.68 (s, 1H), 5.91 (s, 1H), 6.48 (s, 1H), 6.95-6.96 (m, 2H), 7.06-7.07 (m, 1H),
	7.31 (d, $J = 8.0$ Hz, $2H$), 7.67 (d, $J = 8.0$ Hz, $2H$)
	IR (KBr) cm.1

Table 193

1.977	foam 1H NMR (CDCh) & 2.68 (s, 3H), 3.13 (s, 3H), 3.20 (s, 3H), 3.57 (s, 3H), 3.79 (s, 3H), 5.19 (s, 2H), 6.86 (s, 1H), 7.15 (d, J = 8.7 Hz, 1H), 7.31-7.62 (m, 11H) 1R (CHCh) 1517, 1475, 1371, 1227, 1219, 1176, 1117, 1081, 968, 925, 856, 821 cm ⁻¹
876-1	foam 1H NMR (CDCl ₃) & 2.65 (g, 3H), 2.94 (g, 3H), 3.14 (g, 3H), 3.59 (g, 3H), 3.76 (g, 3H), 5.19 (g, 2H), 6.86 (g, 1H), 7.16 (d, J = 8.7 Hz, 1H), 7.33-7.57 (m, 11H) 1R (CHCl ₃) 1517, 1477, 1398, 1370, 1268, 1233, 1216, 1177, 1159, 1079, 972, 894, 856, 818 cm ⁻¹
6-979	foam IH NMR (CDCl ₃) δ 1.77 (s, 3H), 1.81 (s, 3H), 2.69 (s, 3H), 2.94 (s, 3H), 3.25 (s, 3H), 3.60 (s, 3H), 3.76 (s, 3H), 4.64 (d, J = 6.9 Hz, 2H), 5.50 (m, 1H), 6.86 (s, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.34-7.57 (m, 11H) IR (CHCl ₃) 1517, 1476, 1398, 1369, 1234, 1178, 1159, 1105, 1079, 972, 895, 854, 814, 801 cm ⁻¹
086-1	foam 1H NMR (CDCl ₃) δ 1.76 (d, J = 0.9 Hz, 3H), 1.81 (d, J = 0.9 Hz, 3H), 2.71 (s, 3H), 3.20 (s, 3H), 3.24 (s, 3H), 3.57 (s, 3H), 3.79 (s, 3H), 4.64 (d, J = 6.6 Hz, 2H), 5.49 (m, 1H), 6.86 (s, 1H), 7.09 (d, J = 8.7 Hz, 1H), 7.31-7.40 (m, 3H), 7.48-7.55 (m, 3H) 1R (CHCl ₃) 1517, 1474, 1365, 1269, 1236, 1177, 1140, 1116, 1078, 964, 923, 854, 814 cm ⁻¹
1.981	mp 122-123 °C 1H NMR (CDCl ₃) δ 1.77 (8, 3H), 1.82 (d, J = 0.4 Hz, 3H), 3.62 (8, 3H), 3.75 (8, 3H), 4.63 (d, J = 6.6 Hz, 2H), 5.53 (m, 1H), 5.70 (8, 1H), 5.73 (8, 1H), 6.46 (8, 1H), 6.86 (8, 1H), 6.89-7.13 (m, 4H), 7.29-7.46 (m, 3H) 1R (KBr) 3366, 1587, 1496, 1482, 1462, 1449, 1408, 1371, 1313, 1290, 1245, 1210, 1126, 1093, 1073, 1001, 783, 770 cm ⁻¹

Table 194

	mp 171-172 °C:
	111 NMR (CDCL) 5 1.76 (8, 311), 1.82 (8, 311), 3.48 (8, 311), 3.74 (8, 311), 4.61 (d, J = 6.9 Hz, 211), 4.91 (8, 111), 5.53 (m, 1H),
1.982	5.70 (s, 1H), 5.91 (s, 1H), 6.46 (s, 1H), 6.86 (m, 1H), 6.91-7.02 (m, 2H), 7.06 (m, 1H), 7.13 (m, 1H), 7.21 (m, 1H), 7.32 (m,
	CELL COLUMN TO THE COLUMN TO T
	IR (KBr) 3368, 1585, 1519, 1507, 1484, 1460. 1460, 1403, 1264, 1255, 1237, 1206, 1110, 1072, 1006, 789, 766 cm.
	nn 92.6-93 °C
	111 NMR (CUCL ₁₃) & 1.77 (s, 3H), 1.83 (d, J = 0.9 Hz, 3H), 2.26 (s, 3H), 2.27 (s, 3H), 4.63 (d, J = 6.9 Hz, 2H), 5.13 (d, J = 3.9
1-983	Hz, 1H), 5.55 (m, 1H), 6.98-7.14 (m, 8H)
	IR (CHCl ₃) 3578, 2922, 1618, 1522, 1490, 1383, 1282, 1120, 979, 873, 824 cm ⁻¹
	mp 89-95 C
	1H NMR (CDCl ₃) 5 1.77 (s, 6H), 1.81 (d, J = 0.9 Hz, 6H), 2.27 (s, 6H), 4.63 (d, J = 6.6 Hz, 4H), 5.55 (m, 2H), 6.98-7.14 (m,
1.984	8H)
	HR (CHCha) 29:00, 1676, 1620, 1499, 1382, 1296, 1270, 1127, 987, 874 cm.
	mp 74.75 °C
	1H NMR (CDCl3) 6 2.16 (8, 3H), 2.69 (8, 3H), 3.14 (8, 3H), 3.20 (8, 3H), 3.56 (8, 3H), 5.20 (8, 2H), 7.16-7.49 (m, 11H), 7.65-
1.985	7.68 (m, 211)
	IR (CHCl ₃) 2939, 1732, 1613, 1518, 1478, 1454, 1415, 1371, 1331, 1292, 1268, 1176, 1150, 1118, 1088, 1010, 969, 950, 872
	cm.¹
	mp 50-52 ℃
;	111 NMR (CDCL ₃) 6 1.77 (8, 3H), 1.82 (8, 3H), 2.16 (8, 3H), 2.74 (8, 3H), 3.20 (8, 3H), 3.24 (8, 3H), 3.57 (8, 3H), 4.64-4.66 (d.
986-1	J = 6.3 Hz, 2H), 5.50 (m, 1H), 7.10-7.39 (m, 6H), 7.66-7.68 (m, 2H)
	IR (CHCl3) 2938, 1613, 1518, 1477, 1370, 1331, 1290, 1267, 1176, 1150, 1117, 1088, 970, 949, 871 cm.1

Table 195

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55 .

	77 6 (H1) 26 6 (H6 -) 60 6 (H6 -) 60 6 (H6 -) 11 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
to	IH NMR (CDCI ₃) 6 1.59 1.60 (d, J = 0.6 Hz, 3H), 1.70-1.71 (d, J = 0.9 Hz, 3H), 2.26(8, 3H), 2.26 (8, 5H), 2.30 (m, 1H), 2.11
1-987	(m, 111), 3.20 (s, 311), 3.23 (s, 311), 5.24 (m, 111), 7.12 (s, 111), 7.15 (s, 111), 7.23-7.25 (m, 111), 7.33-7.42 (m, 6H)
	mp 159-161 C
	1H NMR (CDCl3) 6 1.76 (8, 3H), 1.82 (8, 3H), 2.12 (8, 3H), 3.48 (8, 3H), 4.61-4.64 (d, J = 6.6 Hz, 2H), 4.75 (br, 1H), 5.54 (m,
886-1	1HJ, 5.69 (s, 1HJ, 5.73 (s, 1H), 6.77-6.98 (m, 6H), 7.51-7.54 (m, 2H)
	IR (CHCh) 3595, 3529, 2937, 1613, 15787, 1522, 1489, 1455, 1401, 1310, 1289, 1173, 1127, 1095, 1009, 939, 835 cm.
	mp 126-128 C
	1H NMR (CDCl ₃) 6 2.25 (e, 3H), 3.78 (e, 3H), 5.16 (e, 2H), 5.75 (br, 1H), 6.83-6.89 (m, 4H), 6.98-7.00 (m, 2H), 7.17 (e, 1H),
1-989	7.40-7.47 (m, 7H)
	IR (CHCl ₃) 3596, 3543, 2937, 1610, 1588, 1523, 1493, 1465, 1455, 1388, 1328, 1315, 1262, 1173, 1126, 1038, 1012, 835 cm
	mp 87-90 °C
	"H NMR (CDCl ₃) δ 1.59-1.60 (d, J = 0.6 Hz, 3H), 1.72-1.73 (d, J = 0.9 Hz, 3H), 2.26 (s, 3H), 2.28 (s, 3H), 2.34-2.37 (m, 2H),
1.990	2.66-2.71 (m, 2H), 4.84-4.86 (br, 2H), 5.28 (m, 1H), 6.79 (d, J = 1.5 Hz, 1H), 6.86-6.89 (m, 3H), 7.11-7.17 (m, 3H), 7.23-7.26
	(m, 2H)
	IR (CHCla) 3598, 2925, 2859, 1612, 1669, 1621, 1488, 1450, 1425, 1414, 1328, 1257, 1171, 1101, 958, 836 cm ⁻¹
	mp 174-176 C
	1H NMR (CDCl ₃) & 2.26 (e, 3H), 3.13 (e, 3H), 3.18 (e, 3H), 3.80 (e, 3H), 5.19 (e, 2H), 6.84 (e, 1H), 7.13 (d, J = 8.4 Hz, 1H),
1.991	7.18 (s, 1H), 7.28·7.50 (m, 9H), 7.59·7.62 (m, 2H)
	IR (CHCl ₃) 2940, 1732, 1613, 1520, 1490, 1465, 1465, 1415, 1371, 1331, 1291, 1260, 1173, 1149, 1111, 1038, 1018, 1003,
	971, 872, 813 cm ⁻¹

Table 196

	mp 135-137 C III NMR (CDCl ₃)
000	(s, 311), 4.64 (d, J = 6.6 Hz, 211), 5.52 (m, 111), 6.84 (s, 111), 7.07 (d, J = 8.7 Hz, 111), 7.18 (s, 111), 7.25-7.35 (m, 4H), 7.59-7.62
	(m, 2H) IR (CHCl ₃) 3596, 3539, 2937, 1610, 1587, 1523, 1492, 1464, 1454, 1388, 1328, 1315, 1292, 1261, 1173, 1126, 1038, 996, 834
	cm. ₁
	mp 131-133 °C up (177 (s. 3H) 1.83 (s. 3H), 2.26 (s. 3H), 3.78 (s. 3H), 4.61-4.64 (d, J = 6.9 Hz, 2H), 5.17 (br, 1H), 5.35 (m,
1.993	H. W. H. H. H. W.
	IR (CHCL) 3596, 3539, 2937, 1610, 1687, 1523, 1492, 1464, 1454, 1388, 1328, 131, 1292, 1261, 1173, 1126, 1038, 996, 834
	cin' l
	mp 127-130 °C
	111 NMR (CDC)3) 6 1.73 (d, J = 0.9 Hz, 3H), 1.76 (d, J = 0.9 Hz, 3H), 2.99 (e, 6H), 3.73-3.76 (m, 2H), 3.78 (e, 6H), 3.88 (e,
1.994	311), 5.37-5.40 (m, 1H), 5.83 (d, J = 7.8 Hz, 1H), 6.78-6.84 (m, 2H), 6.95 (e, 1H), 6.96 (e, 1H), 7.06-7.12 (m, 2H), 7.48-7.53 (m,
	2H)
	mp91-93 ℃
	11 NMR (CDCL) δ 1.78 (8, 311), 1.84 (8, 311), 2.02 (8, 6H), 4.63 (4, $J=6.4~\mathrm{Hz}$, 2H), 5.07 (8, 1H), 5.15 (8, 1H), 5.55 (t, $J=7.0$
1.995	Hz, 1H), 6.63 (dd, J = 2.0, 8.2 Hz, 1H), 6.77 (d, J = 2.0 Hz, 1H), 6.93-6.99 (m, 4H), 7.39 (d, J = 8.6 Hz, 2H)
	IR(KBr) 3423, 2921, 1611, 1518, 1474, 1282, 1244, 1205, 1125, 1089, 995, 837, 815, 785 cm ⁻¹
	mp185.186 °C
	1H NMR (CDCl ₃) 6 1.32 (t, J = 7.5 Hz, 3H), 2.71 (q, J = 7.5 Hz, 2H), 3.46 (s, 3H), 3.76 (s, 3H), 5.16 (s, 2H), 5.69 (s, 1H),
1.996	5.89 (s, 1H), 6.94-7.08 (m, 3H), 7.37-7.46 (m, 5H), 7.54-7.59 (m, 2H), 7.82 (brs, 1H), 7.93 (d, J = 8.1 Hz, 1H)
	IR(KBr) 3504, 3269, 2968, 2936, 1708, 1532, 1518, 1487, 1311, 1286, 1193, 1121, 1071, 1014 cm ⁻¹

Table 197

	45	40	35	30	25	20	15	10	5
997	mp77-78 °C III NMR (CDCB 6.9 Hz, 2H), 4.9 7.28-7.39 (m, 3H IR(KBr) 3431, 2	mp77-78 °C 4H NMR (CDCh ₃)	II), 1.77 (s, 3H) r, 2H), 5.31 (t, J 8.1 Hz, 1H), 7.9 8, 1483, 1368, 1	, 1.82 (s, 3H), 1 = 8.7 Hz, 1H) 9 (s. 1H) 308, 1204, 117	2.70 (s, 3H), 3.5 , 5.50 (t, J = 6.7	26 (s, 3H), 3.55 (s) Hz, 1H), 6.87 (1079, 967, 804 (s)	(s, 3H), 3.82 (s) (s, 1H), 7.10 (d) cm ⁻¹	mp77-78 °C 1H NMR (CDCh ₃) & 1.73 (s, 3H), 1.77 (s, 3H), 1.82 (s, 3H), 2.70 (s, 3H), 3.25 (s, 3H), 3.55 (s, 3H), 3.82 (s, 3H), 4.65 (d, J = 6.9 Hz, 2H), 4.94 (d, J = 7.5 Hz, 2H), 5.31 (t, J = 8.7 Hz, 1H), 5.50 (t, J = 6.6 Hz, 1H), 6.87 (s, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.28-7.39 (m, 3H), 7.87 (d, J = 8.1 Hz, 1H), 7.99 (s, 1H) 17.28-7.39 (m, 3H), 7.87 (d, J = 8.1 Hz, 1H), 7.99 (s, 1H) 18 (KBr) 3431, 2939, 1702, 1518, 1483, 1368, 1308, 1204, 1177, 1121, 1092, 1079, 957, 804 cm ⁻¹	# <i>6</i>
866	mp144-145 °C 111 NMR (CDCh) Hz, 111), 6.66 (br) 7.31-7.37 (m, 1H) IR(KBr) 3476, 29	mp 144-145 °C. 111 NMR (CDCl ₃)	II), 1.82 (s. 3II), brs, 1II), 6.30 (s. 7, 1500, 1472, 1	.3.48 (s, 3H), 3 s, 1H), 6.69 (d (408, 1288, 12	. 5 = 8.1 Hz, 2 19. 1111 cm ⁻¹	J (a, GH), 4.G1 (d H), 6.93-7.01 (n	i, J = 6.9 Hz, 2l	mp144-145 °C. 111 NMR (CDCh.)	8 6
666	mp82-83 °C 1H NMR (CDCI: 5.19 (s, 2H), 6.6 IR(KBr) 3434, 2	mp82-83 °C 1H NMR (CDCl ₃)	H), 3.15 (s, 3H), 7.17 (m, 1H), 7.3 3, 1581, 1608, 1	, 3.48 (s, 3H), 3 36-7.49 (m, 8H	3.56 (s, 3H), 3.7 [) 35 <u>, 1294, 1272,</u>	2 (s, 3H), 3.80 (8, 6H), 4.66 (8, 2, 1078, 814 ci	mp82-83 °C 14 (S. 2H), 3.15 (s, 3H), 3.48 (s, 3H), 3.56 (s, 3H), 3.72 (s, 3H), 3.80 (s, 6H), 4.66 (s, 2H), 4.79 (s, 2H), 6.19 (s, 2H), 6.69 (s, 1H), 7.14-7.17 (m, 1H), 7.36-7.49 (m, 8H) 18 (Kir) 3434, 2939, 1719, 1613, 1681, 1608, 1463, 1396, 1365, 1294, 1272, 1238, 1177, 1122, 1078, 814 cm ⁻¹	<u>.</u>
0001	mp86-86 °C 14 NMR (CDC) 5.19 (s. 2H), 6.8 IR(KBr) 3432, 2	mp86-86 °C 1H NMR (CDCl ₃)	= 7.5 Hz, 3H), (d, J = 8.8 Hz, 1 9, 1480, 1365, 1	2.66 (s, 3H), 2 H), 7.33-7.59 (71 (q, J = 7.6 m, 4H), 7.85 (b	Hz, 2H), 3.13 (s rs, 1H), 7.94 (d,	, 3H), 3.55 (s, J = 8.4 Hz, 1H	mp86-86 °C 14 NMR (CDCl3) δ 1.31 (t, J = 7.5 Hz, 3H), 2.66 (s, 3H), 2.71 (q, J = 7.6 Hz, 2H), 3.13 (s, 3H), 3.55 (s, 3H), 3.78 (s, 3H), 5.19 (s, 2H), 6.85 (s, 1H), 7.15 (d, J = 8.8 Hz, 1H), 7.33-7.59 (m, 4H), 7.85 (brs, 1H), 7.94 (d, J = 8.4 Hz, 1H) 18 (Kily) 3432, 2939, 1727, 1519, 1480, 1365, 1237, 1165, 1079, 959, 803 cm ⁻¹	<u>.</u>
1001		mp 105-106 °C 1H NMR (CDCl ₃)	H), 1.79 (s, 3H),), 6.63 (t, J = 6.9 (dd, J = 2.1, 8.4 2, 1626, 1493, 1	1.82 (s, 3H), 3 9 Hz, 1H), 5.66 Hz, 1H), 7.75 1467, 1327, 123	.49 (e, 3H), 3.7/ 3 (bre, 1H), 5.8′ (bre, 1H) 10, 1139, 1113,	5 (e, 3H), 3.81 (d 7 (brs, 1H), 6.82 1070, 817 cm ⁻¹	, J = 6.6 Hz, 2F (d, J = 8.4 Hz,	mp 105-106 °C HANNER (CDCl3) & 1.76 (s, 6H), 1.79 (s, 3H), 1.82 (s, 3H), 3.49 (s, 3H), 3.75 (s, 3H), 3.81 (d, J = 6.6 Hz, 2H), 4.62 (d, J = 7.2 HZ, 2H), 5.37 (t, J = 6.3 Hz, 1H), 5.53 (t, J = 6.9 Hz, 1H), 5.68 (brs, 1H), 5.87 (brs, 1H), 6.82 (d, J = 8.4 Hz, 1H), 6.95 (s, 2H), 7.05 (s, 1H), 7.26 (s, 1H), 7.69 (dd, J = 2.1, 8.4 Hz, 1H), 7.75 (brs, 1H) R(KBr) 3459, 2934, 1622, 1582, 1525, 1493, 1467, 1327, 1240, 1139, 1113, 1070, 817 cm. ¹	2 (3

Table 198

	mp89-91 ℃
	11 NMR (CDCl3) & 2.70 (s, 3H), 3.12 (s, 3H), 3.55 (s, 3H), 3.71 (s, 3H), 3.79 (s, 6H), 4.77 (s, 2H), 5.18 (s, 2H), 6.69 (s, 2H),
7.1005	7.14 (d, J = 8.8 Hz, 1H), 7.38-7.52 (m, 8H)
	IR(KBr) 3440, 2939, 1721, 1612, 1581, 1508, 1463, 1395, 1364, 1238, 1178, 1120, 1078, 962, 814, 523 cm 1
	mp196-197 C
	111 NMR (CDCl3) 6 2.26 (8, 3H), 3.48 (9, 3H), 3.76 (8, 3H), 5.16 (8, 2H), 5.69 (brs, 1H), 5.83 (brs, 1H), 6.44 (8, 1H), 6.93
1.1003	7.05 (m, 4H), 7.26-7.45 (m, 6H), 7.84 (d, J = 8.1 Hz, 1H), 7.92 (s, 1H), 8.29 (brs, 1H)
	1R(KBr) 3407, 2934, 1672, 1589, 1524, 1459, 1425, 1400, 1316, 1288, 1213, 1119, 1057, 1006, 745 cm 1
	mp80.81 °C
	1H NMR (CDCl3) 6 1.29 (t, J = 7.5 Hz, 3H), 1.72 (s, 3H), 1.76 (s, 6H), 1.81 (s, 3H), 2.70 (s, 3H), 2.71 (q, J = 7.5 Hz, 2H),
1.1004	3.24 (s; 3H), 3.50 (s, 3H), 3.81 (s, 3H), 4.64 (d, J = 6.3 Hz, 2H), 4.72-4.76 (m, 2H), 5.31 (t, J = 6.9 Hz, 1H), 5.50 (t, J = 6.3 Hz,
	1H), 6.87 (s, 1H), 7.08-7.12 (m, 2H), 7.34-7.41 (m, 3H), 7.61 (s, 1H)
	IR(KBr) 3434, 2974, 2938, 1694, 1617, 1480, 1366, 1237, 1202, 1177, 1080, 972, 807, 523 cm ⁻¹
	1H NMR (CDCl ₃) 6 1.31 (t, J = 7.8 Hz, 3H), 1.77 (e, 3H), 1.81 (e, 3H), 2.71 (e, 3H), 2.71 (q, J = 7.8 Hz, 2H), 3.24 (e, 3H),
I.1005	3.55 (8, 3H), 3.78 (8, 3H), 4.64 (d, J = 6.6 Hz, 2H), 5.50 (t, J = 8.1 Hz, 2H), 6.85 (e, 1H), 7.09 (d, J = 8.4 Hz, 1H), 7.33-7.38 (m,
	2H), 7.52 (d, J = 8.1 Hz, 1H), 7.58 (g, 1H), 7.84 (brs, 1H), 7.94 (d, J = 8.1 Hz, 1H)
	IR(KBr) 3434, 3350, 2938, 1727, 1523, 1480, 1368, 1248, 1178, 1165, 1080, 972, 816, 802, 522 cm ⁻¹
	mp91.93 ℃
	III NMR (CDCl ₃) δ 1.30 (t, $J = 7.5 \text{ Hz}$, 3H), 1.75 (e, 6H), 1.79 (e, 3H), 1.81 (e, 3H), 2.55 (q, $J = 7.5 \text{ Hz}$, 2H), 3.48 (e, 3H),
1.1006	3.74 (s, 3H), 3.79 (d, J = 6.3 Hz, 2H), 4.61 (d, J = 6.6 Hz, 2H), 5.41 (t, J = 6.0 Hz, 1H), 5.53 (t, J = 6.9 Hz, 1H), 5.67 (brs, 1H),
	5.94 (brs, 1H), 6.48 (s, 1H), 6.72 (d, J = 8.4 Hz, 1H), 6.95 (s, 2H), 7.07 (s, 1H), 7.37-7.45 (m, 2H), 7.64 (d, J = 7.5 Hz, 1H), .
	IR(KBr) 3433, 2932, 1609, 1521, 1489, 1461, 13958, 1308, 1286, 1245, 1192, 1114, 1072, 1011, 811 cm.

Table 199

50	45	40	35 ·	30		25	20	15	10	5
1-1007	mp71-72 III NMR 4.61 (d, J 2H), 7.06 IR(KBr)	C(CDC13) & 1.31 (t, J = 7.5 Hz, 3) = 6.6 Hz, 2H), 5.53 (t, J = 6.9 Hz (s, 1H), 7.39 (s, 1H) 336, 2932, 1620, 1684, 1519, 148	= 7.5 Hz, 3H), , J = 6.9 Hz, 2H 7.39 (s, 1H) 4, 1619, 1487, 1	1.76 (s, 3H) 1), 5.69 (brs, 459, 1397, 1	1. 1.82 1H), 285,	(s, 3H), 2 5.93 (brs, 1242, 1112	C(C(C(13) δ 1.31 (t, J = 7.5 Hz, 3H), 1.76 (s, 3H), 1.82 (s, 3H), 2.60 (q, J = 7.2 Hz, 2H), 3.47 (s, 3H), 3.75 (s, 3H), 1.6.6 Hz, 2H), 5.53 (t, J = 6.9 Hz, 2H), 5.69 (brs, 1H), 5.93 (brs, 1H), 6.47 (s, 1H), 6.78 (d, J = 8.1 Hz, 1H), 6.95 (s, (s, 1H), 7.26 (s, 1H), 7.39 (s, 1H) 3436, 2932, 162b, 1584, 1519, 1487, 1459, 1397, 1285, 1242, 1112, 1072, 819 cm ⁻¹	z, 211), 3.47 , 6.78 (d, J =	(s, 3H), 3.75 (s	3H), 95 (s,
1.1008	mp 171-173 °C. HI NMR (CDCh ₃))	II), 3.75 (e, 3II) .08 (d, J = 1.9 F .7, 1482, 1388,	i, 5.15 (s, 2H Iz, 1H), 7.37 1284, 1247,), 5.6% -7.48 1089,	s (s, 111), 5 (m, 7H), 7. 1107, 1069	73 °C (CDCh ₃)	(s, 1H), 6.96 c, 2H)	i (dd, J = 8.4, 1.	9 Hz,
1.1009	mp 180·182 °C ¹ H NMR (CDCl ₃)) & 2.68 (s, 3), 7.57 (d, J = { 478, 1370, 117	(CDCl ₃)	, 3.53 (s, 3H 813, 797 cm), 3.7	7 (8, 3H), 6	19 (s, 2H), 6.8	(s, 1H), 7.1	b (d, J = 8.4 Hz	1H),
1.1010	mp 128-130 °C ¹ H NMR (CDCl ₃) & 1.76 (s, 3H), 1.82 (s, 3H), 3.46 (s, 3H), 3.75 (s, 3H), 4.62 (d, J = 7.0 Hz, 2H), 5.53 (t, J = 7.0 Hz, 1H), ² G (s, 1H), 5.85 (s, 1H), 6.44 (s, 1H), 6.93 (dd, J = 8.4, 1.6 Hz, 1H), 6.97 (d, J = 8.4 Hz, 1H), 7.05 (d, J = 1.6 Hz, 1H), 7.42 (d, J = 8.4 Hz, 2H), 7.59 (d, J = 8.4 Hz, 2H) ³ G (s, 1H), 7.59 (d, J = 8.4 Hz, 2H) ⁴ G (kBr) 1617, 1482, 1287, 1244, 1106, 1070, 1013, 822, 783 cm ⁻¹	(CDCl ₃) & 1.76 (s, 3H), 1.82 H), 5.85 (s, 1H), 6.44 (s, 1H), 6. z, 2H), 7.59 (d, J = 8.4 Hz, 2H) 1517, 1482, 1287, 1244, 1106,	(CDCl ₃) & 1.76 (s, 3H), 1.82 (s, 3H), 3.46 (s, 3H), 3.75 (H), 5.85 (s, 1H), 6.44 (s, 1H), 6.93 (dd, J = 8.4, 1.6 Hz, 1H), 2, 2H), 7.59 (d, J = 8.4 Hz, 2H) 1517, 1482, 1287, 1244, 1106, 1070, 1013, 822, 783 cm. ¹), 3.46 (s, 3F , J = 8.4, 1.6 1013, 822, 71	l), 3.7 Hz, 1 83 cm	5 (s, 3H), 4 H), 6.97 (d	(CDCl ₃) & 1.76 (s, 3H), 1.82 (s, 3H), 3.46 (s, 3H), 3.75 (s, 3H), 4.62 (d, J = 7.0 Hz, 2H), 5.53 (t, J = 7.0 Hz, 1H), 5.85 (s, 1H), 6.44 (s, 1H), 6.93 (dd, J = 8.4, 1.6 Hz, 1H), 6.97 (d, J = 8.4 Hz, 1H), 7.05 (d, J = 1.6 Hz, 1H), 7.42 (d, z, 2H), 7.59 (d, J = 8.4 Hz, 2H) 1517, 1482, 1287, 1244, 1106, 1070, 1013, 822, 783 cm ⁻¹	Hz, 2H), 5.6	3 (t, J = 7.0 Hz, 1.6 Hz, 1H), 7.	1H),
1.1011	mp 138-140 °C ¹ H NMR (CDCl ₃) & 1.76 (s, 3H), 1.81 (e, 3H), 2.72 (s, 3H), 3.23 (s, 3H), 3.54 (s, 3H), 3.78 (s, 3H), 4.64 (d, J = 6.5 Hz, 2H), 5.49 (t, J = 6.5 Hz, 1H), 6.83 (s, 1H), 7.09 (d, J = 8.3 Hz, 1H), 7.34 (dd, J = 8.3, 2.0 Hz, 1H), 7.39 (d, J = 2.0 Hz, 1H), 7.43 (d, J = 8.6 Hz, 2H), 7.57 (d, J = 8.6 Hz, 2H) ¹ B 8.6 Hz, 2H), 7.57 (d, J = 8.6 Hz, 2H) ¹ B (KBr) 1518, 1478, 1369, 1177, 1083, 972, 814, 795 cm ⁻¹	z, 1H), 6.83 (s, 7.57 (d, J = 8.6)	(40°C) (CDCl ₃) & 1.76 (e, 3H), 1.81 (e, 3H), 2.72 (e, 3H) = 6.5 Hz, 1H), 6.83 (s, 1H), 7.09 (d, J = 8.3 Hz, 1Hz, 2H), 7.67 (d, J = 8.6 Hz, 2H) 1518, 1478, 1369, 1177, 1083, 972, 814, 795 cm ⁻¹	= 8.3 Hz, 11), 3.2: 1), 7.5	3 (s, 3H), 3	40 °C (CDCl ₃) δ 1.76 (s, 3H), 1.81 (s, 3H), 2.72 (s, 3H), 3.23 (s, 3H), 3.54 (s, 3H), 3.78 (s, 3H), 4.64 (d, J = 6.5 Hz, 2H), = 6.5 Hz, 1H), 6.83 (s, 1H), 7.09 (d, J = 8.3 Hz, 1H), 7.34 (dd, J = 8.3, 2.0 Hz, 1H), 7.39 (d, J = 2.0 Hz, 1H), 7.43 (d, Z, ZH), 7.57 (d, J = 8.6 Hz, ZH) 1518, 1478, 1369, 1177, 1083, 972, 814, 795 cm ⁻¹	(e, 3H), 4.6 , 7.39 (d, J =	4 (d, J = 6.5 Hz, 2.0 Hz, 1H), 7.	2H), 13 (d,

Table 200

	mp 135-138 °C
	11 NMR (CDCl ₃) δ 1.55-1.63 (m, 211), 1.77 (s, 611), 1.83 (s, 611), 4.56 (d, J = 6.6 Hz, 4H), 4.66 (d, J = 4.5 Hz, 4H), 5.50-5.58
1.1012	(m, 2H), 6.96-7.01 (m, 4H), 7.32-7.38 (m, 4H), 7.45 (s, 2H)
	IR (KBr) 3339, 2914, 1609, 1520, 1488, 1385, 1289, 1238, 1177, 1000, 834, 651 cm ⁻¹
	mp 202-205 °C
	1H NMR (CDCl ₃ +CD3OD) 6 1.78 (e, 3H), 1.82 (e, 3H), 4.67 (d, J = 6.6 Hz, 2H), 4.62 (e, 4H), 5.50-5.56 (m, 1H), 6.86-7.00
	(m, 4H), 7.24-7.37 (m, 4H), 7.44 (s, 2H)
	IR (KBr) 3399, 2974, 2930, 1610, 1522, 1489, 1438, 1383, 1238, 1176, 999, 903, 838, 538 cm ⁻¹
	mp 219.221 ℃
	1H NMR (CDCl.1) 6 2.22 (8, 3H), 2.69 (8, 3H), 3.13 (8, 3H), 3.53 (8, 3H), 3.77 (8, 3H), 5.19 (8, 2H), 6.85 (8, 1H), 7.15 (d, J =
1.1014	8.4 Hz, 1H), 7.32-7.49 (m, 7H), 7.60 (s, 4H)
	IR (KBr) 3384, 1701, 1604, 1524, 1482, 1355, 1294, 1176, 1084, 1011, 945, 818 cm.1
	mp 173-176 ℃
	1H NMR (DMSO-d6) 6 1.74 (8, 3H), 1.77 (8, 3H), 2.08 (8, 3H), 2.87 (8, 3H), 3.35 (8, 3H), 3.47 (8, 3H), 3.77 (8, 3H), 4.68 (d, J
1.1015	= 6.4 Hz, 211), 5.48 (t, J = 6.4 Hz, 1H), 7.02 (s, 1H), 7.26-7.29 (m, 3H), 7.57 (d, J = 8.7 Hz, 2H), 7.70 (d, J = 8.7 Hz, 2H), 10.07
	(s, 1H)
	IR (KBr) 3383, 1704, 1235, 1524, 1481, 1360, 1177, 1083, 976, 816 cm.1
	mp 144-145 C
	¹ H NMR (CDCl ₃) δ 1.77 (s, 3H), 1.81 (s, 3H), 2.70 (s, 3H), 3.21 (s, 3H), 3.52 (s, 3H), 3.69 (d, J = 1.6 Hz, 3H), 4.65 (d, J = 6.8)
1.1016	1-1016 Hz, 2H), 5.53 (t, J = 6.8 Hz, 1H), 7.08 (t, J = 8.4 Hz, 1H), 7.16 (dd, J = 8.4, 1.8 Hz, 1H), 7.20 (dd, J = 11.7, 1.8 Hz, 1H), 7.41
	(d, J = 8.8 Hz, 2H), 7.59 (dd, J = 8.8, 1.4 Hz, 2H)
	IR (KBr) 1521, 1470, 1368, 1265, 1177, 1151, 1038, 971, 875 cm ⁻¹

Table 201

5), 5.49 (t, J = 1, J = 8.6 Hz,	4.89 (s, 1H), 1.1 Hz, 1H), 4.64 (d, J =
10	J = 6.6 Hz, 2H Hz, 1H), 7.56 (= 6.9 Hz, 2H), d, J = 8.4, 2.1,
15	(s, 3H), 4.55 (d.	3H), 4.64 (d, J
20	11 (s, 311), 3.65 = 1.9 Hz, 1H), (2 (s, 1H) 114, 1074 cm ⁻¹	(d, J = 0.9 Hz,)6 (t, J = 8.7 Hs, ,814 cm. ¹
25	2.07 (6, 3H), 3.: 1H), 6.73 (d, J (br 8, 1H), 10.03	10 (s, 311), 3.64 8.7 11z, 2H), 7.(5 Hz, 2H) 3, 961, 918, 837
30	I), 1.76 (a, 3H), J = 8.4, 1.9 Hz, br s, 1H), 8.70 489, 1396, 130	1.81 (8, 3H), 3.4 H), 6.94 (d. J = 1 (dd, J = 8.7, 1, 103)
35	mp 196-198 °C 111 NMR (1)MSO-d ₆)	mp 141-143 ℃ 111 NMR (CDCl ₃) δ 1.76 (a, 3H), 1.81 (a, 3H), 3.40 (a, 3H), 3.64 (d, J = 0.9 Hz, 3H), 4.64 (d, J = 6.9 Hz, 2H), 4.89 (a, 1H), 5.66 (t, J = 6.9 Hz, 1H), 7.21 (ddd, J = 8.4, 2.1, 1.1 Hz, 1H), 7.27 (dd, J = 12.3, 2.1 Hz, 1H), 7.44 (dd, J = 8.7, 1.5 Hz, 2H) 112 (dd, J = 12.3, 2.1 Hz, 1H), 7.44 (dd, J = 8.7, 1.5 Hz, 2H) 113 (KBr) 3485, 1523, 1466, 1402, 1266, 1173, 1036, 961, 918, 837, 814 cm ⁻¹ 114 (KBr) 3485, 1523, 1466, 1402, 1266, 1173, 1036, 961, 918, 837, 814 cm ⁻¹ 115 (KBr) 3485, 1523, 1466, 1402, 1266, 1173, 1036, 961, 918, 837, 814 cm ⁻¹ 115 (KBr) 3485, 1523, 1466, 1402, 1266, 1173, 1036, 961, 918, 837, 814 cm ⁻¹ 116 (KBr) 3485, 1523, 1466, 1402, 1266, 1173, 1036, 961, 918, 837, 814 cm ⁻¹
40	mp 196-198 °C 111 NMR (DMSO-d ₆ 6.6 Hz, 111), 6.43 (s, 2H), 7.66 (d, J = 8.6 IR (KBr) 3358, 166	mp 141-143 °C 111 NMR (CDCla) 6 5.56 (t, J = 6.9 Hz, 7.27 (dd, J = 12.3, 2 1R (KBr) 3485, 152; mp81-82 °C 1H NMR (CDCla) 6
45	mp 111 N 6.6 I 2H), 1R (P	mp 111 N 5.56 5.56 7.27 118 (F

1.1017

1.1019 6.3 Hz, 2H), 5.49 (t, J = 6.3 Hz, 1H), 6.83 (s, 1H), 7.09 (d, J = 8.4 Hz, 1H), 7.33-7.39 (m, 2H), 7.48 (e, 1H), 7.82 (d, J = 6.0 Hz, 1H NMR (CDCl₃) δ 2.62 (8, 3H), 2.99 (8, 3H), 3.16 (8, 3H), 3.20 (8, 3H), 3.83 (8, 3H), 5.21 (8, 2H), 6.91 (8, 2H), 7.17 (d, J ≡ IR(KBr) 3434, 3033, 2938, 1611, 1520, 1479, 1366, 1179, 1151, 1085, 969, 850, 793, 519 cm⁻¹ IR(KBr) 3382, 2939, 1736, 1520, 1483, 1365, 1293, 1178, 1119, 1078, 958, 802, 621 cm·¹ 8.2 Hz, 1H), 7.35-7.48 (m, 8H), 7.63 (d, J = 8.4 Hz, 2H) 1H), 7.88 (s, 1H), 8.32 (brs, 1H) mp93-94 C

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55

1.1018

Table 202

	mp74-75 ℃
	11 NMR (CDCh) 6 1.76 (a, 3H), 1.82 (a, 3H), 3.48 (a, 3H), 3.75 (a, 3H), 4.61 (d, J = 6.3 Hz, 2H), 5.53 (t, J = 5.4 Hz, 1H),
1.1021	5.69 (brs, 111), 5.86 (brs, 111), 6.42 (s, 111), 6.83 (d, J = 8.7 Hz, 111), 6.91-6.98 (m, 2H), 7.04 (s, 1H), 7.62 (d, J = 8.7 Hz, 1H),
	7.73 (s, 111)
	IR(KBr) 3495, 3398, 2935, 1633, 1622, 1487, 1291, 1246, 1112, 1072, 821, 788 cm ⁻¹
	mp76.77 °C
	11 NMR (CDCB) δ 1.77 (s, 311), 1.82 (s, 311), 1.84 (s, 311), 3.52 (s, 311), 3.78 (s, 3H), 4.63 (d, $J = 6.9 \text{ Hz}$, 2H), 5.53 (t, $J = 6.6 \text{ Hz}$
1.1022	1-1022 Hz, 1H), 5.74 (brs, 1H), 5.80 (brs, 1H), 6.47 (s, 1H), 6.92-7.00 (m, 2H), 7.04 (s, 1H), 7.38 (d, J = 8.1 Hz, 1H), 7.93 (d, J = 8.1
	Hz, 1H), 8.04 (s, 1H)
	IR(KBr) 3411, 2934, 1662, 1519, 1488, 1425, 1309, 1245, 1175, 1128, 1071, 1050 cm ⁻¹
	mp81.82 °C
	11 NMR (CDCl3) & 1.77 (9, 3H), 1.81 (8, 3H), 2.66 (8, 3H), 2.99 (8, 3H), 3.18 (8, 3H), 3.25 (8, 3H), 3.82 (8, 3H), 4.64 (d, J =
1.1023	1.1023 6.6 Hz, 2H), 5.49 (t, J = 6.0 Hz, 1H), 6.90 (g, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.38-7.43 (m, 3H), 7.62 (d, J = 8.8 Hz, 1H), 8.02 (g,
	IH)
	IR(KBr) 3434, 3027, 2938, 1672, 1611, 1520, 1479, 1365, 1179, 1117, 1074, 970, 847, 793, 519 cm ⁻¹
	mp77-79 ℃
	1H NMR (CDCl ₃) δ 1.78 (8, 3H), 1.83 (8, 3H), 3.77 (8, 3H), 4.63 (d, $J = 6.6$ Hz, 2H), 5.53 (t, $J = 6.2$ Hz, 1H), 5.76 (brs. 2H),
1.1024	6.52 (s, 1H), 6.91.7.02 (m, 6H), 7.46 (d, J = 8.4 Hz, 2H)
	IR(KBr) 3465, 2935, 1613, 1686, 1624, 1487, 1359, 1282, 1245, 1222, 1173, 1167, 1112, 1065, 974, 867, 521 cm ⁻¹
	mp78-79 ℃
	1H NMR (CDCl ₃) δ 2.73 (8, 3H), 2.78 (8, 3H), 3.15 (8, 3H), 3.21 (8, 3H), 3.62 (8, 3H), 5.22 (8, 2H), 7.20 (d, J = 8.4 Hz, 1H),
1-1020	7.37.7.44 (m, 10H), 7.68 (d, J = 8.8 Hz, 2H)
	IR(KBr) 3433, 3032, 2939, 1519, 1473, 1366, 1178, 1151, 1004, 966, 870, 847, 795, 524 cm ⁻¹

EP 0 933 346 A1

Table 203

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	45	40	35	30	25	20	15	10	5
1.1026	mp 158-159 ¹ 1H NMR (CD 5.22 (s, 2H), 6 IR (KBr) 1517	Chapter (t, J = 6.9 Hz, 3H), 2.41 (s, 3H), 3.21 (s, 3H), 3.55 (s, 3H), 3.77 (s, 3H), 4.14 (q, J = 6.9 (dd, J = 2.1, 8.1 Hz, 1H), 6.96-7.01 (m, 2H), 7.28-7.48 (m, 7H), 7.66-7.72 (m, 2H), 7.1482, 1392, 1362, 1240, 1194, 1175, 1146, 1084, 963, 878, 797 cm. ¹	6.9 Hz, 3H), 2 1, J = 2.1, 8.1 H 1240, 1194, 1	2.41 (s, 3H), Hz, 1H), 6.96 175, 1146, 10	3.21 (s, 3H), : -7.01 (m, 2H) 384, 963, 878.	3.55 (s, 3H), 3, 7.28-7.48 (m, 797 cm.1	77 (s, 3H), 4. 7H), 7.66-7.7	14 (q, J = 6.9 Hz 2 (m, 2H)	; 2Н),
1-1027		δ 2.27 (s, 6H) 22, 1490, 1467,	, 3.87 (s, 3H), 1455, 1383, 1	5.20 (s, 2H), 294, 1267, 12	6.93-7.00 (m, 246, 1178, 112	211), 7.01-7.17 26, 1028, 1011	, (in, 5H), 7.25 ,836, 813, 74	i.7.52 (m, 711) 4 cm ^{.1}	
1.108	mp 162-163 °C 1 NMR (CDCL3) & 1.45 (t, J = 6.9 Hz, 3H), 3.46 (s, 3H), 3.74 (s, 3H), 4.15 (q, J = 6.9 Hz, 2H), 4.98 (s, 1H), 5.19 (s, 2H), 5.91 (s, 1H), 6.45 (s, 1H), 6.88-6.94 (m, 2H), 6.95-7.03 (m, 2H), 7.05 (d, J = 1.2 Hz, 1H), 7.27-7.41 (m, 3H), 7.45-7.56 (m, 4H) 1R (KBr) 3424, 3343, 1611, 1521, 1488, 1462, 1454, 1400, 1379, 1358, 1317, 1290, 1278, 1262, 1240, 1225, 1201, 1185, 1127, 1110, 1068, 1026, 1007, 828, 731 cm ⁻¹	C (3a) & 1.45 (t, J = 6.9 Hz, 3H 5.45 (s, 1H), 6.88-6.94 (m, 2H), 4, 3343, 1611, 1521, 1488, 14 068, 1026, 1007, 828, 731 cm ⁻¹	6.9 Hz, 3H), 344 (m, 2H), 6.9 (m, 2H), 6.9 (m, 2H), 6.9 (m, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462, 1462,	3.46 (s, 3H), 5-7.03 (m, 2F) 1464, 1400,	3.74 (s, 3H), ' 4), 7.05 (d, J = 1379, 1358,	1.15 (q, J = 6.9 = 1.2 Hz, 1H), 1317, 1290, 1.	3 Hz, 2H), 4.9 7.27-7.41 (m, 278, 1262, 12	8 (s, 1H), 5.19 (s 3H), 7.45-7.56 (r 40, 1225, 1201,	n, 2H), n, 4H) 1185,
1.1029	mp 73-74 °C 111 NMR (CH)CH ₃) & 1.77 (8, 311), 1.82 (8, 311), 2.27 (8, 611), 3.86 (8, 311), 4.63 (d, J = 7.2 Hz, 2H), 5.56 (m, 1H), 6.92-7.00 (m, 2H), 7.00-7.16 (m, 5H), 7.26-7.34 (m, 2H) 11R (KBr) 1610, 1521, 1489, 1461, 1438, 1297, 1276, 1249, 1231, 1181, 1122, 1028, 985, 835 cm ⁻¹	(34) δ 1.77 (9, 311), 1.82 (9, 311), 2.27 (9, 611), 3.86 (9, 311), 4.63 (4, J = 7.2 Hz, 2H), 5 (m, 5H), 7.26-7.34 (m, 2H) 3, 1521, 1489, 1461, 1438, 1297, 1276, 1249, 1231, 1181, 1122, 1028, 986, 836 cm ⁻¹	, 1.82 (s, 3H), ; (m, 2H) (1438, 1297, 1)	2.27 (a, 611), 3	3.86 (s, 311), 4	.63 (d, J = 7.2	Hz, 2H), 6.56 836 cm ⁻¹	(m, 1H), 6.92-7.)0 (m'
1.1030	inp 86-87 °C 1H NMR (CI) 3.78 (s, 3H), 4 2H), 7.67-7.73 IR (KBr) 1518	δ 1.46 (t, J = (q, J = 6.9 Hz, 2H)	6.9 Hz, 3H), 1 2H), 4.63 (d, 4	I.75 (s, 3H), J = 6.3 Hz, 2 239, 1199, 11	H), 6.63 (m, 180, 1150, 108	9 Hz, 3H), 2.6 IH), 6.84 (s, 1i <u>12, 970, 872, 7</u> 1	54 (s, 3H), 3.2 H), 6.93-7.01	(31) 6 1.46 (t, J = 6.9 Hz, 3H), 1.75 (s, 3H), 1.79 (d, J = 0.9 Hz, 3H), 2.54 (s, 3H), 3.21 (s, 3H), 3.56 (s, 3H), 1.12 (q, J = 6.9 Hz, 2H), 4.63 (d, J = 6.3 Hz, 2H), 5.63 (m, 1H), 6.84 (s, 1H), 6.93-7.01 (m, 3H), 7.35-7.41 (m, 2H) (m, 2H) 1 (m, 2H) 1 1480, 1413, 1389, 1366, 1239, 1199, 1180, 1150, 1082, 970, 872, 798 cm. ¹	, 3H), II (m,

Table 204

	mp 145-146 C
	111 NMR ((3)(3)) 5 1.44 (t, J = 6.9 Hz, 3H), 1.74 (s, 3H), 1.77 (d, J = 0.9 Hz, 3H), 3.47 (s, 3H), 3.75 (s, 3H), 4.13 (q, J = 6.9
1-1031	1-1031 112, 211), 4.63 (d, J = 6.6 11z, 211), 5.10 (s, 111), 5.56 (m, 111), 6.91 (s, 111), 6.46 (s, 111), 6.89-6.94 (m, 211), 6.95-7.03 (m, 311),
	7.50.7.56 (m, 211)
	IR (KBr) 3404, 1611, 1520, 1487, 1464, 1442, 1391, 1358, 1293, 1264, 1237, 1224, 1192, 1112, 1071, 1030, 1002, 831 cm.1
	mp 142-145 ℃
	111 NMR (CDCR) δ 3.13 (8, 311), 3.21 (8, 311), 4.63 (8, 214), 4.65 (8, 211), 5.19 (8, 214), 7.16 (d, $J=8.4$ Hz, 1H), 7.33.7.52 (m,
1.1032	(HC1
	IR (KBr) 3519, 3422, 3380, 3032, 2933, 1611, 1519, 1487, 1364, 1171, 1148, 1109, 969, 871, 817, 527 cm ⁻¹
	mp 103-106 C
	111 NMR (CDC)1,4 CD3OD) 6 1.78 (s, 3H), 1.82 (s, 3H), 3.22 (s, 3H), 3.24 (s, 3H), 4.58-4.67 (m, 6H), 5.46-5.54 (m, 1H), 7.09
1.1033	(d, J = 8.4 Hz, 1H), 7.33·7.53 (m, 8H)
	IR (KBr) 3512, 3414, 3012, 2941, 1612, 1519, 1488, 1362, 1335, 1146, 997, 972, 876, 524 cm.
	mp 184-187 C
	111 NMR (CDC)3+CD3OD) & 1.78 (s, 3H), 1.82 (s, 3H), 4.59-4.65 (m, 6H), 5.52-5.59 (m, 1H), 6.84-6.98 (m, 5H), 7.23-7.28
1.1034	(m, 2H), 7.44 (s, 1H), 7.45 (s, 1H)
	IR (KBr) 3400, 2931, 1611, 1521, 1491, 1247, 1203, 1009, 987, 834 cm.1
	mp 95-96 С
1.1035	
	IR (KBr) 1622, 1512, 1454, 1377, 1309, 1297, 1274, 1267, 1236, 1125, 1008, 877, 822, 742, 696 cm.
	ար 96-96 ℃
1.1036	1.1036 1H NMR (CDCl ₃) & 2.24 (8, 3H), 2.27 (6, 3H), 5.19 (6, 2H), 6.99-7.15 (m, 5H), 7.26-7.52 (m, 9H)
	IR (KBr) 1518, 1499, 1482, 1464, 1380, 1300, 1278, 1262, 1227, 1125, 1090, 1021, 1015, 875, 834, 817, 739 cm.1

Table 205

1.1037	mp 58-59 °C HI NMR (CDCl ₃) & 1.77 (d, J = 0.6 Hz, 311), 1.81 (d, J = 0.9 Hz, 31!), 2.27 (s, 6H), 2.41 (s, 3H), 4.63 (d, J = 6.6 Hz, 2H), 5.56 (m, 11!), 6.98-7.14 (m, 51!), 7.21-7.29 (m, 41!) HR (KR) 1520 1490 1460 1464 1385 1294 1271 1262 1232 1125 1001 828 818 cm ⁻¹
1.1038	mp 67-68 ¹ H NMR (C 6.90-7,14 (c
1.1039	
1.1040	foam 111 NMR (CDCl ₃) 6 3.28 (d, J = 2.4 Hz, 1H), 3.45 (s, 3H), 3.75 (s, 3H), 4.94 (dd, J = 6.0, 1.8 Hz, 2H), 6.74 (ddt, J = 11.1, 2.4, 1.8 Hz, 1H), 6.27 (dt, J = 11.1, 6.0 Hz, 1H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.94~7.00 (m, 2H), 7.07 (d, J = 2.1 Hz, 1H), 7.53 (d, J = 8.7 Hz, 2H) 7.53 (d, J = 8.7 Hz, 2H) 111 (KBr) 3433, 3279, 1612, 1688, 1623, 1489, 1286, 1248, 1223, 1113, 1070, 1011, 938, 825 cm. ¹
.1041	foam 1H NMR (CDCl ₃) δ 3.45 (a, 3H), 3.75 (a, 3H), 4.90 (d, J = 1.8 Hz, 2H), 6.55 (dd, J = 10.8, 2.4 Hz, 1H), 6.71 (dd, J = 17.7, 2.4 1H NMR (CDCl ₃) δ 3.45 (a, 3H), 3.75 (a, 3H), 4.90 (d, J = 1.8 Hz, 2H), 6.55 (dd, J = 10.8, 2.4 Hz, 1H), 6.45 (a, 1H), 6.45 (a, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.97 (dd, J = 8.4, 2.1 Hz, 1H), 7.07 (d, J = 8.4 Hz, 1H), 7.08 (d, J = 2.1 Hz, 1H), 7.53 (d, J = 8.7 Hz, 2H) 1R (KBr) 3433, 1612, 1689, 1623, 1489, 1286, 1224, 1192, 1112, 1070, 1002, 937, 825, 815 cm ⁻¹

Table 206

	mp 185-187 U
	111 NMR (CDCL) 5 1.76 (s, 311), 1.81 (s, 311), 2.76 (s, 311), 3.23 (s, 311), 3.50 (s, 311), 3.78 (s, 311), 4.64 (d, J = 6.6 Hz, 2H),
1.1042	1.1042 5.50 (t, J = 6.6 Hz, 111), 6.63 (t, J = 2.4 Hz, 111), 6.95 (s, 111), 7.09 (d, J = 8.5 Hz, 111), 7.26-7.29 (m, 111), 7.37 (dd, J = 8.5, 2.1
	11z, 111), 7.42 (d, J = 2.1 11z, 111), 7.45-7.51 (m, 211), 7.89 (s, 111), 8.26 (br s, 111)
	IR (KBr) 3418, 1473, 1362, 1177, 1079, 961, 817, 796 cm ⁻¹
	mp 152-154 C
	111 NMR (CDCB.) 5 1.76 (8, 311), 1.82 (8, 311), 3.43 (8, 311), 3.76 (8, 311), 4.61 (d, J = 6.9 Hz, 2H), 5.53 (t, J = 6.9 Hz, 1H),
1.1043	5.69 (s, 111), 6.98 (s, 111), 6.55 (s, 111), 6.63 (t, J = 2.1 Hz, 111), 6.94-7.01 (m, 211), 7.10 (d, J = 0.9 Hz, 111), 7.25-7.27 (m, 111),
	7.46 (d, J = 8.4 Hz, 1H), 7.51 (dd, J = 8.5, 1.5 Hz, 1H), 7.89 (s, 1H), 8.24 (br s, 1H)
	(R (CHCl ₃) 3529, 3480, 1515, 1405, 1407, 1291, 1246, 1107, 1070 cm ⁻¹
	mp 127-128 C
	1H NMR (CDCl ₃) 6 2.45 (s, 3H), 3.52 (s, 3H), 3.77 (s, 3H), 3.91 (s, 3H), 5.22 (s, 2H), 6.84 (s, 1H), 6.91 (dd, J = 8.4, 2.1 Hz,
1.104	1H), 6.79.7.00 (m, 2H), 7.12.7.18 (m, 2H), 7.30.7.47 (m, 5H), 7.59.7.63 (m, 2H)
	IR (CHCE) 2938, 2843, 1606, 1585, 1520, 1483, 1464, 1443, 1390, 1368, 1174, 1141, 1083, 1013, 962, 936, 865, 838 cm ⁻¹
	mp 124.127 C
	1H NMR (CDCl ₃) δ 2.46 (8, 3H), 3.55 (8, 3H), 3.77 (8, 3H), 3.91 (8, 3H), 5.21 (8, 2H), 5.42 (br, 1H), 6.82 (8, 1H), 6.90 (dd, J=
1-1045	8.4, 1.8 Hz, 111), 6.97-7.10 (m, 3H), 7.29-7.47 (m, 7H)
	IR (CHCl ₃) 3579, 2938, 1600, 1523, 1484, 1464, 1393, 1368, 1327, 1282, 1174, 1141, 1081, 1036, 1012, 962, 908 cm ¹
	mp 178-180 ℃
	1H NMR (CDCl ₃) 6 2.44 (8, 3H), 3.29 (8, 3H), 3.58 (8, 3H), 3.78 (8, 3H), 3.91 (8, 3H), 5.22 (8, 2H), 6.83 (8, 1H), 6.99 (dd, J =
1.1046	8.1, 2.1 Hz, 1H), 6.97-7.25 (m, 2H), 7.31-7.58 (m, 8H)
	IR (CHCl ₃) 2939, 2840, 1591, 1519, 1483, 1464, 1374, 1331, 1173, 1141, 1116, 1082, 1012, 964, 863 cm ⁻¹

Table 207

50	111 NMR (CDC) 1-107 2H) 1-107 1-107 1-105	mp 112-114 °C 111 NMR (CDCl ₃) & 1.75-1.76 (d, J = 0.6 Hz, 3H), 1.78-1.79 (d, J = 0.9 Hz, 3H), 2.57 (e, 3H), 3.53 (e, 3H), 3.78 (s, 3H) 111 NMR (CDCl ₃) & 1.75-1.76 (d, J = 0.6 Hz, 3H), 1.78-1.79 (d, J = 0.9 Hz, 3H), 7.12-7.18 (m, 2H), 7.59-7.64 (m, 2H) 112 (CHCl ₃) 2938, 1606, 1583, 1519, 1483, 1464, 1443, 1416, 1389, 1368, 1175, 1141, 1083, 1038, 1013, 962, 936, 865 cm ⁻¹	IMP 203-204 °C 1H NMR (CD3OD) & 4.53 IR (KBr) 3380, 1611, 1586, 817, 787, 730, 693, 646 cm.¹	mp 99-100 ℃ 111 NMR (CDCl ₃) δ 1.75 (a, 3H), 1.78-1.79 (d, J = 0.9 Hz, 3H), 3.46 (a, 3H), 3.75 (a, 3H), 3.88 (a, 3H), 1050 Hz, 2H), 5.57 (m, 1H), 5.89 (a, 1H), 6.46 (a, 1H), 6.96-7.02 (m, 3H), 7.12-7.18 (m, 2H), 7.59-7.64 (m, 2H) 1R (CHCl ₃) 3513, 2938, 1605, 1583, 1490, 1423, 1407, 1392, 1362, 1318, 1269, 1177, 1158, 1140, 1118 930, 846, 826 cm ⁻¹	mp 153-154 °C -1061 3H), 4.62-4.64 (1R (CHCl ₃) 293
10	mp 98-99 °C. III NMR (CDCl ₃)	mp 112-114 °C II NMR (CDCl ₃) & 1.75-1.76 (d, J = 0.6 Hz, 3H), 1.78-1.79 (d, J = 0.9 Hz, 3H), 2.57 (e, 3H), 3.53 (e, 3H), 3.78 (e, 3H), 3.89 B, 3H), 4.62-4.64 (d, J = 7.5 Hz, 2H), 5.54 (e, 1H), 6.84 (e, 1H), 6.96-6.97 (m, 3H), 7.12-7.18 (m, 2H), 7.59-7.64 (m, 2H) IR (CHCl ₃) 2938, 1606, 1583, 1519, 1483, 1464, 1443, 1416, 1389, 1368, 1176, 1141, 1083, 1038, 1013, 962, 936, 865, 838 children	mp 203-204 °C ¹ H NMR (СD3OD)	mp 99-100 °C 111 NMR (CDCl ₃) & 1.75 (a, 3H), 1.78-1.79 (d, J = 0.9 Hz, 3H), 3.46 (a, 3H), 3.75 (a, 3H), 3.88 (a, 3H), 4.62-4.64 (d, J = 6.6 Hz, 2H), 5.57 (m, 1H), 5.89 (a, 1H), 6.46 (a, 1H), 6.96-7.02 (m, 3H), 7.12-7.18 (m, 2H), 7.59-7.64 (m, 2H) 1R (CHCl ₃) 3513, 2938, 1605, 1583, 1490, 1423, 1407, 1392, 1362, 1318, 1269, 1177, 1158, 1140, 1118, 1078, 1038, 1012, 930, 846, 826 cm ⁻¹	mp 153·154 °C. 1H NMR (CDCl ₃)
25	, 5.22 (s, 211), 6.	J = 0.6 Hz, 3H) H), 5.54 (8, 1H), 9, 1483, 1464, 1),4.55 (s, 2H), 5 1490, 1462, 14(1.78-1.79 (d, J [:] , 6.46 (e, 1H), 6. 3, 1490, 1423, 1	1.79-1.80 (d, J = 5.54 (m, 1H), 6.4 1, 1464, 1374, 13
10	.69 (t, J F.H =), 1.78-1.79 (d, , 6.84 (e, 111), (.21 (s, 2H), 6.8 34, 1380, 131	= 0.9 Hz, 3H), .96-7.02 (m, 3) 1407, 1392, 13	= 0.9 Hz, 3H), 84 (e, 1H), 6.9 332, 1239, 11
25	= 54.6 Hz, 2H), 37, 916, 851 cm	, J = 0.9 Hz, 3F 6.96-6.97 (m, 3 389, 1368, 1176	34-6.88 (m, 2H) 7, 1300, 1268,	, 3.46 (e, 3H), 3 H), 7.12-7.18 (r 362, 1318, 1266	, 2.57 (s, 3H), 3 16-6.97 (m, 4H), 73, 1141, 1116,
20 .	7.09-7.50 (m,	I), 2.57 (e, 3H), H), 7.12-7.18 (t i, 1141, 1083,	, 7.12-7.50 (m, 1194, 1173, 11	1.76 (s, 3H), 3.8 n, 2H), 7.69-7.6 9, 1177, 1168,	.29 (s, 3H), 3.6 , 7.46-7.59 (m, 1082, 1038, 10
15	12H), 7.74-7	3.53 (s, 3H), n, 2H), 7.59- 1038, 1013, 9	12H) 28, 1033, 10	8 (s, 3H), 4.6 (m, 2H) 1118,	0 (s, 3H), 3.7 3H) 111, 965, 864
0	.75 (d, J = 4.5 l	.3.78 (s, 3H), 3 7.64 (m, 2H) 962, 936, 865, 8	07, 906, 871, 8	32-4.64 (d, J = 6	79 (s, 3H), 3.89
;	, z	38	, ,	9. %	6

Table 208

nmorphous 1.1052 7.39.7.52 (m, 711) 1R (CHCL ₃) 3597, 3535, 2937, 1731, 1612, 1689, 1622, 1489, 14 939, 835 cm ⁻¹ mp 141-142 °C 111 NMR (CDCL ₃) 3578, 3514, 1621, 1600, 1683, 1623, 1492, 1464, 13 117, 2.1 Hz, 111) 11 (CHCl ₃) 3578, 3514, 1621, 1600, 1683, 1623, 1492, 1464, 13 902 cm ⁻¹ mp 138-140 °C 11 NMR (CDCl ₃) 6 5.17 (s, 2H), 5.60 (s, 1H), 5.72 (s, 1H), 6.9 11 R(KBr) 3600-2800(br), 1590, 1528, 1503, 1483, 1454, 1386, 129 mp 176-178 °C 11 NMR (CDCl ₃) 6 3.13 (s, 3H), 3.32 (s, 3H), 5.19 (s, 2H), 7.10 mp 176-178 °C 1-1055 H NMR (CDCl ₃) 6 1.77 (s, 3H), 1.81 (s, 3H), 3.23 (s, 3H), 3.35 mp 134-136 °C H NMR (CDCl ₃) 6 1.77 (s, 3H), 1.81 (s, 3H), 3.23 (s, 4H) R (KBr) 3600-2800(br), 1611, 1525, 1503, 1469, 1359, 1290, 129 mp 134-136 °C H NMR (CDCl ₃) 6 1.77 (s, 3H), 1.81 (s, 3H), 3.23 (s, 4H) R (KBr) 3600-2800(br), 1609, 1627, 1604, 1469, 1351, 1289, 129 HR (KBr) 3600-2800(br), 1609, 1627, 1604, 1469, 1361, 1289, 129		
7.39-7.52 IR (CHC) 939, 835 mp 141-1 111 NMR Hz, 2H), 11.7, 2.1 IR (CHC) 902 cm ⁻¹ mp 138-1 H NMR 7.37-7.47 IR (KBr) mp 176-1 H NMR IR (KBr) mp 134-1 H NMR J = 8.4 H	8 -	morphous I NMR (CDCU ₃) & 2.12 (s, 3H), 3.47 (s, 3H), 5.15 (s, 2H), 5.82-6.08 (m, 3H), 6.70-6.95 (m, 5H), 7.02 (d, J = 8.1 Hz, 1H),
939, 835 mp 141-1 11 NMR 11.7, 2.1 IR (CHC 902 cm 1 mp 138-1 IR (KBr) mp 176-1 mp 176-1 mp 176-1 if NMR IR (KBr) mp 176-1 if NMR IR (KBr)		.39-7.52 (m, 711) 3 (CHCLs) 3597, 3535, 2937, 1731, 1612, 1589, 1622, 1489, 1455, 1401, 1382, 1328, 1309, 1288, 1173, 1128, 1096, 1011,
mp 141-1 111 NMR Hz, 2H), 11.7, 2-1 HR (CHC 902 cm ⁻¹ mp 138-1 HR (KBr) mp 176-1 HR (KBr) mp 134-1 HR (KBr) mp 134-1 HR (KBr)	ő	39, 835 cm.
11 NMR 112, 21), 11.7, 2.1 11R (CHC 902 cm ⁻¹ 11H NMR 7.37.7.47 11R (KBr)	Ē	ip 141-142 C
HIZ, 21), 11.7, 2.1 HR (CHC 902 cm. 1 HR NMR 7.37-7.47 HR (KBr) MP 176-1 HR (KBr) MP 134-1 HR (KBr) HR (KBr) HR (KBr)	=	NMR ((3)(3)) 6 1.75 (8, 311), 1.78-1.79 (d, J = 0.9 112, 311), 3.49 (8, 311), 5.0 (8, 511), 1.78-1.79 (d, J = 0.9 112, 511), 3.49 (8, 511), 5.60 (8, 511), 5.60 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5.40 (8, 511), 5
11.7, 2.1 IR (CHC 902 cm 1 mp 138-1 H NMR 7.37-7.47 IR (KBr) mp 176-1 H NMR IR (KBr) mp 134-1 H NMR IR (KBr) mp 134-1 H NMR J = 8.4 H NMR		(d, J F.H = 3.3 Hz, 1H), 5.57 (m, 1H), 5.88 (s, 1H), 6.45 (s, 1H), 6.99-7.11 (m, 4H), 7.33 (m, 1H), 7.43 (dd, J =
IR (CHC) 902 cm. ¹ mp 138-1 ¹		1.7, 2.1 Hz, 1H)
902 cm.¹ mp 138-140 °C iH NMR (CI)C!a) δ 7.37-7.47 (m, 51!), 7.5 IR (KBr) 3600-2800(b mp 176-178 °C iH NMR (CI)Cla) δ IR (KBr) 3600-2800(b mp 134-136 °C iH NMR (CI)Cla) δ J = 8.4 Hz, 1H), 7.44- IR (KBr) 3600-2800(b	=	R (CHCL ₃) 3578, 3514, 1621, 1600, 1583, 1523, 1492, 1464, 1397, 1320, 1279, 1175, 1140, 1116, 1100, 1076, 1038, 1011,
mp 138-140 °C iH NMR (CI)C!a) δ 7.37-7.47 (m, 51!), 7.5 IR (KBr) 3600-2800[b mp 176-178 °C iH NMR (CI)C!a) δ IR (KBr) 3600-2800[b mp 134-136 °C iH NMR (CI)Cla) δ J = 8.4 Hz, 1H), 7.44- IR (KBr) 3600-2800[c]	<u> </u>	02 cm ¹
14 NMR (CIDCIs) 6 7.37-7.47 (m., 511), 7.5 1R (KBr) 3600-2800(b mp 176-178 C 1H NMR (CDCIs) 6 1R (KBr) 3600-2800(b mp 134-136 C 1H NMR (CDCIs) 6 J = 8.4 Hz, 1H), 7.44-1R (KBr) 3600-2800(b	E	140 C
IR (KBr) mp 176-1 H NMR IR (KBr) mp 134-1 H NMR J = 8.4 H		H NMIR (CDCI3) 6 5.17 (8, 2H), 5.60 (8, 1H), 5.72 (8, 1H), 6.98-7.02 (m, 2H), 7.10-7.14 (m, 3H), 7.18 (8, 1H), 7.35 (8, 1H),
IR (KBr) mp 176-1 H NMR IR (KBr) mp 134-1 H NMR J = 8.4 H		.37.7.47 (m, 511), 7.59-7.61 (m, 211)
mp 176-1 'H NMR 'IR (KBr) mp 134-1 'H NMR J = 8.4 H		R (KBr) 3600-2800(br), 1590, 1528, 1503, 1483, 1454, 1386, 1294, 1254, 1223, 1187, 1132, 1086, 1009 cm ⁻¹
1R (KBr) mp 134-1 1H NMR J = 8.4 H		որ 176-178 ^Հ
IR (KBr.) mp 134-1 iH NMR J = 8.4 H		
mp 134-1 1H NMR J = 8.4 H IR (KBr)		R (KBr) 3600-2800(hr), 1611, 1525, 1503, 1469, 1359, 1290, 1244, 1170, 1088, 979 cm ⁻¹
'H NMR J = 8.4 H	=	pp 134-136 °C
J = 8.4 H	_	H NMR (CDCl ₃) δ 1.77 (8, 3H), 1.81 (8, 3H), 3.23 (8, 3H), 3.32 (8, 3H), 4.64 (d, J = 6.9 Hz, 1H), 5.48-5.54 (m, 1H), 7.10 (d,
IR (KBr) 3600-2800(br), 1609, 1527, 1504, 1469, 1351, 1289, 12		= 8.4 Hz, 1H), 7.44-7.55 (m, 4H), 7.58-7.65 (m, 4H)
		IR (KBr) 3600.2800(br), 1609, 1527, 1504, 1469, 1351, 1289, 1277, 1186, 1171, 1115, 1089, 973 cm.1

Table 209

55

50	45	40	35	30	25	20	15	10	5
1.1057	mp 97-100 % 11 NMR (CI) 111), 5.74 (br	δ 1.77 (d, J = 8), 6.95 (d, J = 8.7.58.762 (m. 2)	= 0.9 Hz, 3H), 1 3.7 Hz, 1H), 7.1	1.82 (d, J = 0.	9 Hz, 3H), 4.6; I, 8.7 Hz, 1H),	3 (d, J = 7.2 Hs	, 211), 5.50-5. ,24 (d, J = 2.4	(Cl ₃) δ 1.77 (d, J = 0.9 Hz, 3H), 1.82 (d, J = 0.9 Hz, 3H), 4.63 (d, J = 7.2 Hz, 2H), 5.50-5.54 (m, 1H), 5.62 (br s, s, 1H), 6.95 (d, J = 8.7 Hz, 1H), 7.12 (dd, J = 2.4, 8.7 Hz, 1H), 7.18 (s 1H), 7.24 (d, J = 2.4 Hz, 1H), 7.36 (s, 1H), 2.19, 7.58-7.62 (m, 2H)	(br 8, 1H),
	IR (KIR) 3600-2800(hr), 1699, 1688, 1528, 1482, 1385, 1326, 1289, 1252, 1212, 1193, 1132, 1112, 1084, 1056, 1001 cm ⁻¹	0(hr), 1599, 15	88, 1528, 1482	2, 1385, 1326	1289, 1252,	212, 1193, 11	32, 1112, 108	4, 1066, 1001 cm	-
1.1058	mp 216-218 11 NMR (DI		2.93 (s, 1211), 3.73 (s, 611), 6.74-6.79 (m, 411), 6.92 (s, 2H), 7.38-7.43 (m, 4H) 1616, 1533, 1496, 1458, 1442, 1387, 1360, 1230, 1202, 1169, 1059, 1035 cm ⁻¹	GH), 6.74-6.7 3, 1442, 1387	9 (m, 4H), 6.9 1360, 1230, 1	2 (s, 2H), 7.38 202, 1169, 10	-7.43 (m, 4H) 59, 1035 cm ⁻¹		
1.1059	mp 122-123 111 NMR (C 4.83 (br, 111	δ 1.74 (d, J = 5.41 (m, 1H), (= 0.6 Hz, 3H), 6.61-6.77 (m, 1	1.78 (d, J = (3.6 Hz, 3H), 2 (m, 2H), 6.99	.26 (s, 3H), 2.:) -7.04 (m, 2H),	29 (s, 3H), 3.7 7.10 (s, 1H),	Υ (1) δ 1.74 (d, J = 0.6 Hz, 3H), 1.78 (d, J = 0.6 Hz, 3H), 2.26 (s, 3H), 2.29 (s, 3H), 3.77 (d, J = 6.9 Hz, 2H), 5.36-5.41 (m, 1H), 6.61-6.77 (m, 1H), 6.86-6.91 (m, 2H), 6.99-7.04 (m, 2H), 7.10 (s, 1H), 7.11 (s 1H), 7.21-7.26	2H),
	(m, 2H) IR (KBr) 3600-280	00-2800(br), 1626, 1608, 1526, 1489, 1428, 1336, 1300, 1252, 1209, 1187 cm ⁻¹	108, 1526, 1489	9, 1428, 1336	1300, 1252,	1209, 1187 cm			
1.1060	mp foam 1H NMR (CL 1H), 6.66 (d, 1R (CHCl ₃) 3	JCl ₃) & 1.74 (s, 3H), 1.77 (s, 3H), 2.27 (s, 3H), 2.31 (s, 3H), 3.76 (d, J = 6.6 Hz, 2H), 3.86 (s, 3H), 5.38- J = 8.1 Hz, 1H), 6.80 (d, J = 1.8 Hz, 1H), 6.86-6.90 (m, 3H), 7.11 (s, 1H), 7.16 (s 1H), 7.23-7.26 (m, 2H), 600-2800(br), 1730, 1611, 1526, 1489, 1456, 1256, 1171, 1137, 1100, 1036 cm ⁻¹	l), 1.77 (s, 3H), 3 (d, J = 1.8 Hz 1611, 1 <u>526, 1</u> 4	. 2.27 (s, 3H), c, 1H), 6.86-6 189, 1455, 12	2.31 (s, 3H), 3 .90 (m, 3H), 7. 56, 1171, 1137	1.76 (d, J = 6.6 111 (e, 1H), 7.1 7, 1100, 1036 c	Hz, 2H), 3.86 6 (8 1H), 7.23 m.1	1.74 (s, 3H), 1.77 (s, 3H), 2.27 (s, 3H), 2.31 (s, 3H), 3.76 (d, J = 6.6 Hz, 2H), 3.86 (s, 3H), 5.38-5.43 (m, 4z, 1H), 6.80 (d, J = 1.8 Hz, 1H), 6.86-6.90 (m, 3H), 7.11 (s, 1H), 7.16 (s 1H), 7.23-7.26 (m, 2H) other), 1730, 1611, 1525, 1489, 1465, 1256, 1171, 1137, 1100, 1036 cm.	3 (m,
1901-1		C OCl ₃) & 3.01 (s, 6H H), 8.26-8.32 (m, 1H) 50-2800(br), 1712, 16	I), 3.79 (s, 3H),	, 3.80 (s, 3H) 3, 1494, 1460	6.79-6.83 (m.	2H), 6.92 (s,	1H), 6.98 (s 1]	3.01 (s, 6H), 3.79 (s, 3H), 3.80 (s, 3H), 6.79-6.83 (m, 2H), 6.92 (s, 1H), 6.98 (s 1H), 7.41-7.51 (m, 4H), .32 (m, 1H) 1.32 (m, 1H) 1.32 (m, 1H) 1.33 (m, 1H)	4H),

Table 210

1.1062	mp 240-245 °C III NMR (CDCla) & 3.82 (s, 6H), 6.95 (s, 2H), 7.41-7.49 (m, 4H), 8.13 (br s, 2H), 8.29-8.35 (m, 1H) ID APPENDED SERVICES 1705, 1508, 1544, 1492, 1381, 1294, 1215, 1197, 1165, 1109, 1055, 1033 cm ⁻¹
	1H NMR (CDCl ₃) \(\delta \) 1.99 (s, \delta \), 2.17 (s, \delta \), 3.21 (s, \delta \), 6.20 (s, \delta \), 6.96 \cdot 7.11 (m, \delta \), 7.23 (d, \delta = 8.7 Hz, \delta \), 7.33 \cdot \.
1.1063	1-1063 7.52 (m, 711) 1R (KBr) 1617, 1513, 1366, 1295, 1267, 1198, 1173, 1149, 1127, 1106cm ⁻¹
1.1064	111 NMR (CDCL ₃) 6 1.99 (s, 6H), 2.17 (s, 3H), 3.21 (s, 3H), 5.18 (d, J = 3.9 Hz, 1H), 6.97 · 7.10 (m, 4H),7.23 (d, J = 8.7Hz, 1.1064 2H), 7.37 (d, J = 8.7Hz, 2H)
- 	1H NMR (CDCl3) & 1.78 (8, 3H), 1.83 (8, 3H), 2.00 (8, 6H), 2.19 (8,3H), 3.22 (8, 3H), 4.65 (d, J = 6.3Hz, 2H), 5.52-5.62 (m,
1.1065	1.1065 111), 6.96-7.13 (m, 411), 7.24 (d, J = 8.711z, 2H), 7.38 (d, J= 8.7 Hz, 2H) 18 (KR)1617 1576 1514 1466 1359 1297 1268 1204, 1161, 1002cm ⁻¹
	14 NMR (CDCl ₃) \$ 1.77 (8, 3H), 1.81 (8, 3H), 2.01 (8, 6H), 2.18 (8, 3H), 4.63 (d, J = 6.9 Hz, 2H), 4.75 (8, 1H), 5.52 · 5.60 (m,
1-1066	1.1066 1H), 6.82 · 7.11 (m, 8H) 10.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	14 NMR (CDCl ₃) 6:2.25 (s, 3H), 2.27 (s, 3H), 2.31 (s, 3H), 3.20 (s, 3H), 4.75 (s, 1 H), 6.83 (d, J= 8.4 Hz, 1H), 7.05
1.1067	1.1067 7.14 (m, 4H), 7.34 (d, J = 8.4 Hz, 2H), 7.42 (d, J = 8.4 Hz, 2H)
	111 NMR (CDCl ₃) 6 1.77 (8, 3H), 1.82 (8, 3H), 2.25 (8, 3H), 2.28 (8, 6H), 3.20 (8, 3H), 4.58 (d, J = 6.6 Hz, 2H), 5.50 · 5.58
1.1068	1.1068 (m, 1H), 6.88 (d, J = 9.0 Hz, 1H), 7.08 - 7.16 (m, 4H), 7.34 (d, J = 8.7 Hz, 2H), 742 (d, J = 8.7 Hz, 2H)
	IR (KBr) 1604, 1513, 1486, 1367, 1238, 1176, 1163, 1131, 1002 cm ⁻¹

EP 0 933 346 A1

Table 211

1-1069	HINMR (CDCE) & 1.76 (s, 3H), 1.81 (s, 3H), 2.26 (s, 3H), 2.28 (s, 6H), 4.57 (d, J = 6.6Hz, 2H), 4.80 (s, 1H), 5.50 - 5.58 (m, 3H) (m, 1H), 6.85 - 6.91 (m, 3H), 7.09 - 7.17 (m, 3H), 7.21 - 7.28 (m, 3H)
1.1070	14 NMR (CDCh.) 5: 2.26 (e, 3H), 2.30 (s, 3H), 3.00 (s, 6H), 5.19 (s, 2H), 6.80 (d, J = 8.7 Hz, 2H), 7.02 · 7.16 (m, 5H), 7.26 (d, J = 8.7 Hz, 2H), 7.33 · 7.51 (m, 5H) 18 (KBr) 1608, 1527, 1490, 1356, 1297, 1297, 1281, 1191, 1022, 2m;
1.107.1	111 NMR (CDCl ₃)
1-1072	¹ H NMR (CDC! ₃) 6:1.77 (s, 3H), 1.81 (s, 3H), 2.27 (s, 3H), 2.30 (s, 3H), 3.00 (s, 6H), 4.63 (d, J=6.6 Hz, 2H), 5.51.5.59 (m, 1.1072 1H), 6.80 (d, J=8.4 Hz, 2H), 6.97.7.16 (m, 5H), 7.27 (d, J=8.14 Hz, 2H) IR (KBr) 1611, 1528, 1489, 1353, 1297, 1266, 1228, 1122, 1011 cm ⁻¹
I.1073	
1.1074	mp 163-164 ℃ ¹ H NMR (CDCl ₃) δ 1.74 (8, 3H), 1.78 (8, 3H), 2.30 (8, 3H), 2.31 (8, 3H), 3.75 (d, J = 6.6 Hz, 2H), 3.86 (8, 3H), 3.87 (8, 3H), 5.37-5.45 (m, 1H), 6.66 (d, J = 8.4 Hz, 1H), 6.74-6.83 (m, 6H), 6.89 (dd, J = 1.8, 8.1 Hz, 1H), 7.14 (8, 1H), 7.16 (8, 1H) IR (KBr), 3408, 3389, 3294, 3210, 2919, 2835, 1528, 1495, 1208, 1032, 866, 826 cm ⁻¹

Table 212

	mp 168-171 °C
	11 NMR (CDCB) δ 1.74 (8, 6H), 1.77 (8, 6H), 2.31 (8, 6H), 3.75 (4, $J=6.9$ Hz, 4H), 3.86 (8, 6H), 5.37-5.45 (m, 2H), 6.66 (d,
1.1075	J = 8.1 Hz, 2H), 6.80 (d, J = 1.8 Hz, 2H), 6.89 (dd, J = 1.8, 8.1 Hz, 2H), 7.16 (s, 1H)
	IR (KBr) 3423, 2968, 2927, 2912, 2849, 1609, 1526, 1498, 1464, 1261, 1209, 1135, 1030, 855, 803 cm ⁻¹
	ა ა ა ა ა ა ა ა ა ა ა ა ა ა ა ა ა ა ა
	11 NMR (CDCh) δ -2.54 (8, 3H), 3.19 (8, 3H), 3.85 (8, 3H), 6.17 (8, 2H), 5.71 (brs, 1H), 6.93 (d, J = 8.1 Hz, 1H), 7.01-7.07
1.1076	(m, 3H), 7.24-7.26 (m, 2H), 7.37-7.43 (m, 7H), 7.66 (d, $J = 8.7$ Hz, 2H)
	IR(KBr) 3466, 3029, 2939, 2937, 1610, 1520, 1482, 1365, 1246, 1201, 1175, 1150, 1073, 969, 872, 839, 804 cm ⁻¹
	mp151.152 C
	11 NMR (CDCh) 6 4.00 (s, 3H), 4.91 (brs, 1H), 5.24 (s, 2H), 6.89 (d, J = 8.2 Hz, 2H), 7.00 (d, J = 8.0 Hz, 1H), 7.12-7.47 (m,
1.1077	1011), 7.71 (d, J = 7.4 Hz, 1H), 7.89 (s, 1H)
	IR(KBr) 3422, 1612, 1526, 1491, 1454, 1329, 1287, 1269, 1248, 1171, 1136, 1103, 1019, 827 cm ⁻¹
	mp173-174 C
:	111 NMR (CDC13) 6 3.13 (8, 311), 4.92 (brs, 111), 6.19 (8, 211), 6.88 (d, J = 8.6 Hz, 2H), 7.16-7.26 (m, 4H), 7.36-7.69 (m, 7H),
1.1078	7.69 (d, J = 9.4 Hz, 1H), 7.86 (s, 1H)
	IR(KBr) 3426, 1613, 1527, 1489, 1435, 1361, 1330, 1294, 1243, 1164, 1118, 1070, 978, 821 cm ⁻¹
	mp168-169 ℃
	1H NMR (CDCI3) 6 3.20 (s, 3H), 3.99 (s, 3H), 5.22 (s, 2H), 6.89 (d, J = 8.8 Hz, 1H), 7.11-7.15 (m, 2H), 7.31-7.49 (m, 10H),
1-10/2	7.73 (d, $J = 7.4$ Hz, 1H), 7.90 (s, 1H)
	IR(KBr) 3434, 1603, 1524, 1488, 1369, 1335, 1244, 1178, 1143, 1119, 1006, 871 cm.

Table 213

i	
[-1080	mp68-69 °C 1H NMR (CDCl ₃) δ 3.13 (s, 3H), 3.19 (s, 3H), 5.19 (s, 2H), 7.18 (d, J = 8.6 Hz, 2H), 7.26-7.59 (m, 11H), 7.73 (d, J = 9.2 Hz, 1H), 7.89 (s, 1H) 1H), 7.89 (s, 1H) 1R(KBr) 3431, 3034, 2938, 1613, 1524, 1487, 1367, 1330, 1293, 1242, 1175, 1161, 1118, 970, 872, 828 cm ⁻¹
1.1081	
1-1082	
1.1083	
J.1084	mp110-1111 °C. 11 NMR (CDC13)

Table 214

	mp147.148 C
	11 NMR (CDCh) δ 1.76 (8, 311), 1.79 (8, 311), 3.96 (8, 311), 4.65 (d, $J=6.3$ Hz, 211), 4.91 (brs, 1H), 5.55 (t, $J=5.7$ Hz, 1H),
1.1085	6.88 (d, J = 8.1 Hz, 2H), 6.99 (d, J = 8.4 Hz, 1H), 7.12.7.26 (m, 4H), 7.36 (d, J = 8.1 Hz, 1H), 7.89 (s, 1H)
	IR(KBr) 3450, 2938, 1612, 1524, 1490, 1436, 1340, 1264, 1230, 1212, 1139, 1123, 984, 835 cm ⁻¹
	mp134-135 U
	111 NMR (CDCE) 5 1.77 (s, 311), 1.82 (s, 311), 4.64 (d, J = 6.6 11z, 2H), 4.84 (brs, 1H), 5.52 (t, J = 7.2 Hz, 1H), 5.77 (s, 1H),
1-1086	1-1086 6.87 (d, $J = 8.7$ Hz, 2H), 6.96 (d, $J = 8.4$ Hz, 1H), 7.12 (dd, $J = 2.4$, 8.7 Hz, 1H), 7.36 (d, $J = 8.1$ Hz, 1H), 7.70 (d, $J = 8.4$ Hz,
	111), 7.89 (8, 111)
_	IR(KBr) 3367, 1610, 1489, 1442, 1333, 1265, 1193, 1165, 1124, 834, 805 cm ⁻¹
	mp156-167 C
,	1H NMR (CDCl3) & 1.78 (s, 311), 1.81 (s, 3H), 3.82 (s, 3H), 3.89 (s, 3H), 4.65 (d, J = 6.2 Hz, 2H), 4.95 (brs, 1H), 5.22 (brs,
1.1087	1H), 5.58 (t, J = 6.0 Hz, 1H), 6.73 (s, 1H), 6.87-7.00 (m, 6H), 7.53 (d, J = 8.4 Hz, 2H)
	IR(KHr) 3:194, 2934, 1610, 1526, 1499, 1455, 1402, 1240, 1221, 1139, 1099, 894, 815 cm ⁻¹
	mp69-70 °C
	"H NMR (CDCL3) δ 1.77 (8, 3H), 1.83 (8, 3H), 3.80 (8, 3H), 4.63 (d, $J = 7.0 \text{Hz}$, 2H), 4.93 (brs, 1H), 5.22 (brs, 1H), 5.52 (t, $J = 1.0 \text{Hz}$
1.1088	= 7.0 Hz, 1H), 5.78 (bre, 1H), 6.70 (d, J = 1.6 Hz, 1H), 6.83-7.01 (m, 6H), 7.51 (d, J = 8.8 Hz, 2H)
	IR(KBr) 3411, 2933, 1611, 1526, 1492, 1453, 1263, 1242, 1220, 1190, 1172, 1096, 907, 822 cm ⁻¹
	mp 160-161 °C
	1H NMR (CDC13) & 1.39 (d, J = 6.0 Hz, 6H), 2.40 (8, 3H), 3.21 (8, 3H), 3.55 (8, 3H), 3.77 (8, 3H), 4.56 (m, 1H), 5.20 (8, 2H),
1.1089	1-1089 $ 6.83 (s, 111), 6.93 (dd, J = 1.8, 8.1 Hz, 1H), 7.01 (d, J = 8.1 Hz, 1H), 7.01 (d, J = 1.8 Hz, 1H), 7.28-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.6-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, 7H), 7.66-7.72 (m, J = 1.8 Hz, 1H), 7.8-7.48 (m, J$
	2H)
	IR (KBr) 1515, 1480, 1463, 1391, 1363, 1239, 1192, 1176, 1149, 1082, 1018, 962, 873, 800 cm.1

Table 215

20 25 30 35	mp 154-155 °C. 4H NMR (CDCh) & 2.59 (s, 3H), 3.21 (s, 3H), 3.54 (s, 3H), 3.77 (s, 3H), 5.23 (s, 2H), 6.84 (s, 1H), 7.06 (d, J = 8.4 Hz, 1H), 7.24-7.50 (m, 9H), 7.65-7.71 (m, 2H) 7.24-7.50 (m, 9H), 7.65-7.71 (m, 2H) 1R (KBr) 1513, 1479, 1365, 1267, 1232, 1178, 1150, 1079, 971, 959, 875, 797 cm ⁻¹	mp 137-138 ℃ ¹ H NMR (CDCh ₃)	mp 75-76 °C ¹ H NMR (CDCL ₃)	mp 119-120 °C 111 NMR (CDCl3) δ 1.37 (d, J = 6.3 Hz, 6H), 1.73 (s, 3H), 1.77 (d, J = 0.9 Hz, 3H), 3.46 (s, 3H), 3.75 (s, 3H), 4.51 (m, 1H), 4.61 (d, J = 6.6 Hz, 2H), 5.14 (s, 1H), 5.54 (m, 1H), 5.93 (s, 1H), 6.46 (s, 1H), 6.89-6.95 (m, 2H), 6.98 (d, J = 8.1 Hz, 1H), 7.01-7.07 (m, 2H), 7.50-7.56 (m, 2H) IR (KBr) 3426, 1610, 1522, 1488, 1455, 1402, 1267, 1237, 1174, 1135, 1112, 1079, 1020 cm ⁻¹	mp 150-151 °C ¹ H NMR (CDCl ₃)	¹ H NMR (CDCl ₃) δ 0.96 (s, 3H), 0.98 (s, 3H), 1.53-1.82 (m, 3H), 2.99 (s, 6H), 3.20 (t, J = 7.2 Hz, 2H), 3.78 (s, 3H), 3.79 (s, 3H), 3.87 (br, 1H), 6.71-6.83 (m, 3H), 6.92 (s, 1H), 6.94 (s, 1H), 7.23-7.31 (m, 2H), 7.47-7.52 (m, 2H)
45	mp 154-155 °C 4H NMR (CDCL) & 2.59 (s, 3H), 3.: 7.24-7.50 (m, 9H), 7.65-7.71 (m, 2H) 1R (KB) 1513, 1479, 1365, 1267, 12	mp 137-138 C 4H NMR (CDCl ₃) 6.45 (a, 1H), 6.89-6 1R (KB _F) 3443, 335	mp 75-76 °C ¹ H NMR (CDC!s) 4-51 (m, 1H), 4-61 (IR (KBr) 1516, 148	mp 119-120 °C 111 NMR (CDCl ₃)	mp 160-151 °C ¹ H NMR (CIDCl ₃) ¢ J = 8.4 Hz, 1H), 7.2 IR (KBr) 3410, 161	1H NMR (CDCl3) 6 3H), 3.87 (br, 1H), 6.3
50	1.1090	1.1091	I. 1092 4	I. 1093 4 7 7 11	n 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-	1.1095

Table 216

	mp 87-89 C
1.1096	5.34 (m, 111), 6.79-6.83 (m, 211), 6.92-6.97 (m, 3H), 7.26-7.34 (m, 2H), 7.47-7.52 (m, 2H)
	IR (KBr) 3600-2800(br), 1613, 1631, 1495, 1460, 1448, 1380, 1359, 1253, 1210, 1057, 1036 cm ⁻¹
	1H NMR (CDCL) & 2.92 (8, 3H), 3.00 (8, 6H), 3.78 (8, 3H), 3.79 (8, 3H), 4.02 (br, 1H), 6.71-6.83 (m, 3H), 6.92 (8, 1H), 6.96
1.1097	(s, 111), 7.25-7.32 (m, 211), 7.47-7.52 (m, 211)
	IR (KBr) 3600-2800(br), 1625, 1613, 1533, 1497, 1462, 1445, 1381, 1358, 1328, 1262, 1205, 1163, 1051, 1031 cm ⁻¹
	mp 114-115 ℃
1.1098	1.1098 HI NMR (CDCE) 6 2.27 (8, 6H), 2.54 (8, 3H), 5.19 (8, 2H), 7.00-7.16 (m, 5H), 7.26-7.51 (m, 9H)
	IR (KBr) 1519, 1501, 1483, 1454, 1310, 1295, 1263, 1232, 1123, 998, 744 cm.1
	mp 68-69 C
	HENMR (CDCh) δ 1.62 (br s, 111), 1.77 (s, 311), 1.82 (s, 311), 2.27 (s, 311), 2.28 (s, 311), 4.64 (d, J = 6.8 Hz, 211), 4.76 (s,
6601:1	211), 5.56 (m, 111), 7.00-7.16 (m, 5H), 7.33-7.48 (m, 4H)
	IR (KBr) 3433, 1522, 1490, 1384, 1311, 1296, 1266, 1232, 1194, 1122, 1025, 1013, 992, 841, 818 cm.1
	mp 68-69 ℃
	14 NMR (CDCI3) 6 1.62 (br s, 1H), 1.77 (s, 3H), 1.82 (s, 3H), 2.27 (s, 3H), 2.28 (s, 3H), 4.64 (d, J = 6.8 Hz, 2H), 4.76 (s,
0011-1	2HJ, 5.56 (m, 1H), 7.00.7.16 (m, 5H), 7.33-7.48 (m, 4H)
	1R (KBr) 3433, 1522, 1490, 1384, 1311, 1296, 1266, 1232, 1194, 1122, 1025, 1013, 992, 841, 818 cm.

EP 0 933 346 A1

Table 217

	J 171 C
	111 NMR (CDCh) & 1.77 (s, 311), 1.81 (d, J = 0.9 Hz, 311), 2.68 (s, 3H), 3.21 (s, 3H), 3.55 (s, 3H), 3.78 (s, 3H), 4.65 (d, J = 6.6
1011-1	1-1101 11z, 211), 5.53 (m, 111), 6.84 (s, 111), 7.03 (d, J = 8.7 Hz, 111), 7.29 (dd, J = 2.1, 8.7 Hz, 111), 7.36-7.41 (m, 211), 7.46 (d, J = 2.1
	Hz, 1H), 7.66-7.72 (m, 2H)
	IR (KBr) 1510, 1477, 1376, 1358, 1349, 1294, 1237, 1196, 1173, 1145, 1077, 1004, 958, 861, 801 cm ⁻¹
	mp 168-169 C
	411 NMR (CDC3) 6 1.76 (d, J = 0.3 Hz, 3H), 1.80 (d, J = 0.9 Hz, 3H), 3.44 (a, 3H), 3.75 (a, 3H), 4.64 (d, J = 6.6 Hz, 2H), 4.97
1.1102	1.1102 (9, 111), 5.55 (m, 1H), 6.00 (8, 1H), 6.45 (8, 1H), 6.89-6.95 (m, 2H), 7.01 (d, J = 8.4 Hz, 1H), 7.33 (dd, J = 2.1, 8.4 Hz, 1H), 7.51
	(d, J = 2.1 Hz, 1H), 7.51.7.56 (m, 2H)
	IR (KBr) 3396, 1613, 1521, 1485, 1467, 1440, 1408, 1384, 1357, 1286, 1264, 1229, 1116, 1076, 1066, 993, 834 cm ⁻¹
	mp 176.177 C
	¹ HI NMR (CDCl ₃) & 1.77 (s, 3H), 1.80 (s, 3H), 2.09 (s, 3H), 2.16 (s, 3H), 3.87 (s, 3H), 4.65 (d, J=7.2 Hz, 2H), 4.78 (br s, 1H),
1.1103	5.06 (e, 1H), 5.40·5.60 (m.1H), 6.76 (e, 1H), 6.82·6.91 (m, 4H), 7.02 (d, J=7.8 Hz, 1H), 7.22·7.27 (m, 2H)
	IR (CHCl ₃) 3597, 3533, 3026, 3010, 2921, 1731, 1612, 1520, 1488, 1240, 1172 cm ⁻¹
	mp 185-186 ℃
	111 NMR (CDCl3) & 1.78 (9, 3H), 1.82 (8, 3H), 2.06 (8, 3H), 2.15 (8, 3H), 4.66 (d, J=6.9 Hz, 2H), 4.71 (8, 1H), 4.89 (8, 1H),
1.104	5.53-5.58 (m, 1H), 6.75 (s, 1H), 6.86-6.91 (m, 2H), 6.90-7.00 (m, 3H), 7.21-7.26 (m, 2H)
	IR (CHCl ₃) 3691, 3598, 3546, 3068, 2922, 1674, 1613, 1520, 1488, 1298, 1262, 1165 cm ⁻¹
	mp 143-144 C
1 1 10 6	111 NMR (CDCl ₃) 6 2.48 (8, 3H), 3.21 (8, 3H), 3.52 (8, 3H), 3.67 (d, J = 1.2 Hz, 3H), 3.92 (8, 3H), 5.23 (8, 2H), 6.92·7.02 (m,
cor 1-1	3H), 7.31-7.48 (m, 7H), 7.60 (dd, J = 8.7, 1.5 Hz, 2H)
	IR (KBr) 1519, 1470, 1370, 1256, 1173, 1152, 1029, 872 cm·l

Table 218

	mp 128-130 C
-	HI NMR (CDCL) δ 1.76 (8, 3H), 1.80 (8, 3H), 2.59 (8, 3H), 3.24 (8, 3H), 3.53 (6, 3H), 3.67 (d, J = 0.9 Hz, 3H), 3.90 (8, 3H),
961	4.64 (d, J = 6.9 Hz, 2H), 5.55 (t, J = 6.9 Hz, 1H), 6.97-7.00 (m, 3H), 7.41 (d, J = 8.8 Hz, 2H), 7.60 (dd, J = 8.8, 1.1 Hz, 2H)
	IR (KBr) 1519, 1361, 1258, 1175, 1148, 1041, 978, 874 cm.1
	11 NMR (CDCl.) δ 1.76 (s, 3H), 1.79 (s, 3H), 3.43 (s, 3H), 3.63 (d, $J=0.9$ Hz, 3H), 3.89 (s, 3H), 4.65 (d, $J=6.8$ Hz, 2H).
1.117	6.01 (8, 111), 5.67 (t, J = 6.8 Hz, 111), 6.65 (8, 111), 6.90-7.06 (m, 611), 7.43 (dd, J = 8.7, 1.5 Hz, 2H)
	IR (KBr) 3433, 1523, 1464, 1397, 1253, 1216, 1038, 977, 838, 814 cm ⁻¹
	mp 127-128 ℃
,	1H NMR (CDCl.) 5 2.25 (s, 3H), 2.27 (s, 3H), 3.20 (s, 3H), 5.22 (s, 2H), 7.02 (d, J = 8.4 Hz, 1H), 7.10 (s, 1H), 7.11 (s, 1H),
1.1108	7.18 (dd, J = 2.1, 8.4 Hz, 1H), 7.31·7.54 (m, 10H)
	IR (KBr) 1513, 1484, 1369, 1284, 1243, 1175, 1150, 1061, 984, 968, 868, 847, 791, 718 cm.1
	mp 161.162 C
	'H NMR (CDCL:) 6 2.26 (8, 3H), 2.28 (8, 3H), 5.16 (8, 2H), 5.19 (8, 2H), 5.70 (br s, 1H), 6.82 (dd, J = 2.1, 8.4 Hz, 1H), 6.96-
1.1109	7.16 (m, 7H), 7.31-7.51 (m, 10H)
	IR (KBr) 3449, 1521, 1492, 1470, 1455, 1394, 1294, 1279, 1247, 1232, 1199, 1185, 1129, 1013, 740, 695 cm.1
	mp 133-134 C
	1H NMR (CDCl ₃) δ 2.26 (s, 6H), 4.80 (br s, 1H), 5.21 (s, 2H), 6.85-6.93 (m, 2H), 7.02 (d, J = 8.4 Hz, 1H), 7.09 (s, 1H), 7.17
21:1	(s, 114), 7.15-7.52 (m, 9H)
	IR (KBr) 3350, 1601, 1619, 1485, 1463, 1387, 1289, 1255, 1169, 1060, 839, 813, 731 cm ⁻¹

Table 219

50	45	40	35	30	25	20	15	10	5
	٠.,								
	mp 8:3-84 °C 111 NMR (CDCI ₃) & 1.78 (d, J = 0.3 Hz, 3H), 1.82 (d, J = 0.9 Hz, 3H), 2.26 (s, 3H), 2.27 (s, 3H), 3.20 (s, 3H), 4.65 (d, J = 6.6	= F, d) 81.1 &	0.3 Hz, 3H), 1.	.82 (d, J = 0.9	Hz, 3H), 2.26	(e, 3H), 2.27 (t	з, ЗН), 3.20 (в.	3H), 4.65 (d, J =	9.9
.1111	.1111 Hz, 2H), 5.55 (m, 1H), 6.99 (d, J = 8.4 Hz, 1H), 7.11 (s, 1H), 7.12 (s, 1H), 7.19 (dd, J = 2.1, 8.4 Hz, 1H), 7.38 (d, J = 2.1 Hz, 1H), 7.32-7.43 (m, 4H)	1H), 6.99 (d, J	= 8.4 Hz, 111),	7.11 (8, 1H),	7.12 (8, 1H), 7	'.19 (dd, J = 2.	1, 8.4 Hz, 1H)	, 7.38 (d, J = 2.1	Hz,
	IR (KBr) 1514, 14	14, 1485, 1364, 1286, 1253, 1197, 1178, 1166, 1067, 976, 882, 851 cm ⁻¹	, 1253, 1197, 1	178, 1156, 100	57, 976, 882, 8	151 cm ⁻¹			
	mp 86-87 C								
	11 NMR (CDCh.) δ 1.77 (d, $J_1 = 0.6$ Hz, 3H), 1.82 (d, $J = 0.9$ Hz, 3H), 2.27 (e, 6H), 4.65 (d, $J = 6.6$ Hz, 2H), 5.00 (e, 1H), 5.55	$\delta = 1.77 \text{ (d, J}_1 =$	0.6 Hz, 3H), 1.	82 (d, J = 0.9	Hz, 3H), 2.27	(s, 6H), 4.65 (d	, J = 6.6 Hz, 2	Н), 6.00 (в, 1Н), 6	99
.1112	-1112 (m, 111), 6.86-6.92 (m, 211), 6.98 (d, J = 8.4 Hz, 111), 7.10 (s, 111), 7.11 (s, 111), 7.20 (dd, J = 2.1, 8.4 Hz, 111), 7.22-7.26 (m,	2 (m, 2H), 6.98	(d, J = 8.4 Hz,	111), 7.10 (8,	1H), 7.11 (8,	1H), 7.20 (dd,	J = 2.1, 8.4 H;	z, 1H), 7.22-7.26	Ĥ,
	211, 7.38 (d, $J = 2$	2.1 Hz, 1H)							
	IR (KBr) 3339, 1608, 1530, 1492, 1429, 1362, 1288, 1258, 1232, 1213, 1189, 1112, 889, 783 cm ⁻¹	308, 1530, 1492,	1429, 1362, 13	288, 1258, 123	32, 1213, 1189	1, 1112, 889, 78	33 cm ⁻¹		
	amorphous								
	HI NMR (CDCl ₃) 6 1.76 (9, 3H), 3.32 (9, 6H), 3.44 (6, 3H), 3.74 (8, 3H), 5.23 (8, 2H), 7.02 (8, 1H), 7.14-7.20 (m, 2H), 7.28 (d,	δ 1.76 (s, 3H)	, 3.32 (s, 6H), 3	1.44 (s, 3H), 3.	74 (s, 3H), 5.2	3 (s, 2H), 7.02	(8, 1H), 7.14-7	7.20 (m, 2H), 7.28	Ġ,
=		.32-7.55 (m, 7H), 7.72 (d, $J = 8$	3.4 Hz, 211), 9.	22 (s, 1H),				
	IR (KBr) 3382, 1684, 1518, 1469, 1365, 1237, 1150, 1017, 972, 872, 815 cm.1	384, 1518, 1469,	1365, 1237, 1	150, 1017, 972	, 872, 815 cm	-			
	mp 173-175 C								
	1H NMR (CDCl3) & 1.76 (e, 3H), 1.81 (e, 3H), 1.97 (e, 3H), 3.19 (e, 6H), 3.21 (e, 3H), 3.37 (e, 3H), 3.75 (e, 3H), 4.62 (d, J=	δ 1.76 (s, 3H)	1, 1.81 (s, 3H),	1.97 (s, 3H), 3	.19 (s, 6H), 3.	21 (a, 3H), 3.3	7 (a, 3H), 3.75	(a, 3H), 4.62 (d,	J = J
1114	1114 6.9 11z, 211), 5.50 (t, J = 6.9 Hz, 1H), 6.85 (m, 2H), 7.06 (d, J = 8.4 Hz, 1H), 7.25 (m, 1H), 7.37 (br s, 1H), 7.66 (d, J = 8.7 Hz,	(t, J = 6.9 Hz, 1)	H), 6.85 (m, 21-	1), 7.06 (d, J =	: 8.4 Hz, 1H),	7.25 (m, 1H), 7	7.37 (br s, 1H),	, 7.66 (d, J = 8.7	Hz,
	2H)								
	IR (KBr) 3421, 1518, 1470, 1366, 115, 1107, 970, 814 cm. ¹	18, 1470, 1366,	115, 1107, 970), 814 cm ⁻¹					

Table 220

	υ 96-98 Υ
	111 NMR (DMSO-da) 8 1.72 (a, 3H), 1.77 (a, 3H), 3.27 (a, 3H), 3.59 (a, 3H), 4.21 (a, 2H), 4.55 (d, J = 6.3 Hz, 2H), 5.50 (t, J =
1.1115	1.1115 6.3 Hz, 111), 6.17 (s, 111), 6.59 (dd, J = 8.1, 1.8 Hz, 111), 6.66 (d, J = 1.8 Hz, 111), 6.82 (d, J = 8.7 Hz, 2H), 6.97 (d, J = 8.1 Hz,
	IR (KBr) 3431, 3396, 3319, 1611, 1521, 1486, 1264, 1172, 1111, 987, 826 cm ⁻¹
	IND 186-188 C
	111 NMR (1)MSO d_{d_1} δ 1.72 (8, 311), 1.76 (8, 611), 3.28 (8, 314), 3.68 (8, 311), 4.54 (d, $J=6.6~\mathrm{Hz}$, 2H), 5.48 (t, $J=6.6~\mathrm{Hz}$, 1H),
1.1116	1.1116 6.53-6.58 (m, 111), 6.65 (d, J = 1.8 Hz, 114), 6.83-6.89 (m, 4H), 7.43 (d, J = 8.4 Hz, 2H), 8.73 (br s, 1H), 8.96 (br s, 1H), 9.53
	(br s, 1H)
	IR (KBr) 3429, 1652, 1611, 1619, 1474, 1250, 1080, 1018, 981, 836 cm ⁻¹
	mp 210-213 Υ.
	HI NMR (CDCh) δ 3.48 (s, 311), 3.77 (s, 311), 5.16 (s, 211), 5.71 (s, 111), 5.86 (s, 111), 6.48 (s, 111), 6.95 (dd, $J=8.4, 2.1$
1-11117	Hz, 1H), 7.04 (d, J = 8.4 Hz, 1H), 7.07 (d, J = 2.1 Hz, 1H), 7.40-7.48 (m, 5H), 7.83 (d, J = 9.0 Hz, 2H), 8.32 (d, J = 9.0 Hz, 2H)
	IR (KBr) 3499, 1511, 1343, 1284, 1247, 1195, 1109, 1070, 1013 cm ⁻¹
	mp 156-158 C
	1H NMR (CDCl3) & 2.67 (9, 3H), 3.14 (8, 3H), 3.56 (8, 3H), 3.80 (8, 3H), 5.20 (8, 2H), 6.87 (8, 1H), 7.16 (d, J = 8.7 Hz, 1H),
8111:1	7.32.7.48 (m, 7H), $7.82 (d, J = 9.2 Hz, 2H)$, $8.32 (d, J = 9.2 Hz, 2H)$
	IR (KBr) 1518, 1479, 1350, 1177, 1119, 1079, 947, 816 cm ⁻¹
	111 NMIR (CDCN ₃) δ 1.77 (9, 3H), 1.81 (8, 3H), 2.71 (8, 3H), 3.24 (8, 3H), 3.57 (8, 3H), 3.80 (8, 3H), 4.64 (d, J = 6.7 Hz, 2H),
1.1119	5.50 (t, J = 6.7 Hz, 1H), 6.87 (s, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.35 (d, J = 8.4, 2.1 Hz, 1H), 7.39 (d, J = 2.0 Hz, 1H), 7.82 (d, J
	= 9.0 Hz, 2H), 8.32 (d, $J = 9.0 Hz$, 2H)
	IR (KBr) 1519, 1479, 1360, 1178, 1075, 946, 850, 799 cm ⁻¹

EP 0 933 346 A1

Table 221

5

55

11 NMR (CDCB,) δ 1.76 (8, 3H), 1.82 (8, 3H), 3.61 (8, 3H), 3.67 (8, 3H), 3.73 (8, 3H), 4.62 (d, J = 6.9 Hz, 2H), 5.00 (bz. 8, 5.72 (s, 111), 5.83 (s, 111), 6.48 (s, 111), 6.93 (dd, J = 8.1, 1.8 Hz, 111), 6.98 (d, J = 8.1 Hz, 111), 7.04 (d, J = 1.8 Hz, 111), 7.83 (d, 11 NMR (CDCH3) δ 1.78 (9, 3H), 1.82 (9, 3H), 2.34 (9, 3H), 4.65-4.67 (d, J = 6.9 Hz, 2H), 5.55 (m, 1H), 6.41-6.78 (dt, J F·H 11 NMR (CDCB) δ 1.77 (8, 311), 1.82 (8, 311), 3.48 (8, 3H), 3.77 (8, 311), 4.63 (d, J = 6.6 Hz, 211), 5.53 (t, J = 6.6 Hz, 1H), 111), 5.50-5.57 (m, 111), 5.69 (hr. s, 111), 6.65 (s, 111), 6.86-6.96 (m, 411), 7.00 (d, J = 1.8 Hz, 111), 7.48 (d, J = 8.4 Hz, 2H) 10 IR (KBr) 3428, 2938, 1680, 1613, 1594, 1520, 1479, 1460, 1393, 1260, 1226, 1104, 1081, 993, 834 cm. 15 IR (CHCl₁₃) 1752, 1623, 1493, 1435, 1385, 1301, 1272, 1169, 1132, 1070, 1037, 916, 889 cm⁻¹ 20 IR (KBr) 3492, 1588, 1511, 1482, 1345, 1283, 1244, 1116, 1069, 1010 cm⁻¹ = 54.6, 3.3 Hz, 2H), 7.05-7.25 (m, 5H), 7.26-7.45 (m, 2H), 7.75 (m, 2H) 25 30 35 J = 9.0 Hz, 211), 8.32 (d, J = 9.0 Hz, 2H) 40 mp 135-138 °C mp 140-142 C mp 178-180 C 45 50

11 NMR (CDC), 6 3.03 (a, 6H), 3.54 (a, 3H), 3.76 (a, 3H), 3.91 (a, 3H), 5.22 (a, 2H), 6.80-6.99 (m, 6H), 7.28-7.58 (m, 7H) IR (CHC1s) 2938, 1731, 1609, 1627, 1485, 1442, 1394, 1365, 1174, 1141, 1082, 1037, 1013, 961, 936, 863 cm⁻¹ mp 173-174 C 1.1124

HI NMR (CDCH) δ 1.75 (8, 3H), 1.78-1.79 (d, J = 0.6 Hz, 3H), 2.13 (8, 3H), 3.50 (8, 3H), 3.87 (8, 3H), 4.63-4.65 (d, J = 6.6

IR (CHCl₃) 3596, 3528, 2937, 1612, 1584, 1522, 1489, 1454, 1400, 1259, 1173, 1139, 1102, 1009, 930, 865, 835 cm⁻¹

Hz, 2H), 5.00 (br, 1H), 5.57 (m, 1H), 5.75 (s, 1H), 6.79 (s, 1H), 6.84·7.00 (m, 5H), 7.50·7.53 (m, 2H)

Table 222

	mp 103-106 °C
	111 NMR (CDCM) 6 1.78 (s, 3H), 1.82-1.83 (d, J = 0.9 Hz, 3H), 4.65-4.67 (d, J = 6.9 Hz, 2H), 5.55 (m, 1H), 6.41-6.78 (td, J
1.1125	F-11 = 54.9, 2.7 Hz, 211), 6.94-7.31 (m, 7H), 7.73 (m, 2H)
	IR (CHCh) 3592, 1612, 1525, 1495, 1385, 1301, 1263, 1187, 1173, 1132, 1069, 1036, 917, 889, 838 cm ⁻¹
	mp 153-155 °C
	111 NMR (CIICLI) & 1.75 (8, 311), 1.78-1.79 (d, J = 0.9 Hz, 311), 2.58 (s, 3H), 3.03 (s, 6H), 3.55 (s, 3H), 3.77 (s, 3H), 3.88 (s,
1.1126	3H), 4.61-4.64 (d, J = 6.9 Hz, 2H), 5.54 (m, 1H), 6.80-6.97 (m, 6H), 7.54-7.57 (d, J = 8.7 Hz, 2H)
	IR (CHCh) 2938, 1609, 1527, 1485, 1464, 1442, 1392, 1365, 1174, 1140, 1082, 1038, 1012, 961, 935 cm ⁻¹
	mp 160-161 C
	11 NMR (CDCI ₃) 6 2.12 (s, 3H), 3.49 (s, 3H), 3.89 (s, 3H), 4.89 (br, 1H), 5.21 (s, 2H), 5.76 (s, 1H), 6.79-6.92 (m, 5H), 7.00
1.1127	1.1127 (d, J = 8.4 Hz, 1H), 7.31-7.53 (m, 7H)
	1R (CHCl ₃) 3594, 3517, 2937, 1731, 1612, 1589, 1622, 1489, 1455, 1400, 1327, 1259, 1240, 1173, 1139, 1102, 1011, 930, 865,
	835 cm ¹
	mp 149-150 °C
	1H NMR (CDCl ₃) δ 1.74-1.75 (d, J = 0.9 Hz, 3H), 1.78-1.79 (d, J = 0.9 Hz, 3H), 3.03 (e, 1H), 3.49 (e, 6H), 3.75 (e, 3H), 3.88
	s, 3H), 4.62.4.64 (d, J = 6.6 Hz, 2H), 5.57 (m, 1H), 5.95 (s, 1H), 6.49 (s, 1H), 6.81-6.84 (m, 2H), 6.95-7.03 (m, 3H), 7.55-7.58
1.1128	(m, 2H)
	IR (CHCl.) 3509, 2937, 1675, 1610, 1584, 1528, 1492, 1464, 1397, 1362, 1323, 1197, 1175, 1140, 1117, 1078, 1038, 1011,
	929, 835 cm ¹
	mp 163-165 ℃
	¹ H NMR (CDCl ₃) 6 2.15 (8, 3H), 2.47 (8, 3H), 3.20 (8, 3H), 3.55 (8, 3H), 3.90 (8, 3H), 5.22 (8, 2H), 6.80 (dd, $J = 8.4, 2.1 \text{ Hz}$
1.1129	1H), 6.88 (d, J = 2.1 Hz, 1H), 7.00 (d, J = 8.4 Hz, 1H), 7.17 (s, 1H), 7.35-7.47 (m, 7H), 7.66-7.69 (m, 2H)
	IR (CHCl ₃) 2938, 1604, 1584, 1518, 1478, 1370, 1331, 1241, 1176, 1150, 1010, 987, 937, 872, 846 cm ⁻¹

EP 0 933 346 A1

Table 223

	mp 142-144 C
,	11 NMR (CDCl3) & 1.76-1.77 (d, J = 0.9 Hz, 3H), 1.79-1.80 (d, J = 0.9 Hz, 3H), 2.16 (s, 3H), 2.60 (s, 3H), 3.20 (s, 3H), 3.57
1.1130	(s, 311), 3.88 (s, 311), 4.62-4.65 (d, J = 6.6 Hz, 211), 5.55 (m, 111), 6.83-6.87 (m, 211), 7.00 (d, J = 8.4 Hz, 111), 7.18 (s, 111),
	7.35-7.38 (m, 2H), 7.67-7.70 (m, 2H)
	IR (CHCI3) 1604, 1582, 1517, 1478, 1416, 1370, 1332, 1240, 1176, 1150, 1093, 1008, 987, 936, 872 cm ⁻¹
	mp 121-123 Շ
Š	111 NMR (DMSO-d6) 6 1.70 (8, 3H), 1.71 (8, 3H), 3.71-3.75 (m, 4H), 3.75 (8, 6H), 5.21-5.27 (m, 2H), 5.54-5.59 (m, 2H),
1511:1	6.65-6.71 (m, 2H), 6.95 (s, 2H), 7.19-7.29 (m, 4H)
	IR (KBr) 3600-2800(br), 1627, 1536, 1497, 1470, 1454, 1375, 1341, 1257, 1208, 1125, 1053, 1035 cm ⁻¹
	mp 169-170 C
	111 NMR (CDCL3) 6 1.77 (d, $J = 0.6 \text{Hz}$, 3H), 1.81 (d, $J = 0.9 \text{Hz}$, 3H), 2.26 (e, 6H), 4.63 (d, $J = 6.6 \text{Hz}$, 2H), 5.31 (e, 1H), 5.34
1-1132	1-1132 (8, 111), 5.55 (m, 111), 6.80 (dd, J = 2.1, 8.1 Hz, 111), 6.89 (d, J = 2.1 Hz, 111), 6.92 (d, J = 8.1 Hz, 114), 6.98-7.13 (m, 5H)
	IR (KBr) 3338, 1619, 1695, 1623, 1492, 1475, 1461, 1427, 1386, 1367, 1309, 1298, 1270, 1223, 1193, 1172, 1122, 1113, 999,
	983, 871, 819, 785 cm ⁻¹
	111 NMR (CDC)3) 6 1.14 (t, J = 6.9 Hz, 3H), 2.42 (e, 3H), 3.20 (e, 3H), 3.73 (q, J = 6.9 Hz, 2H), 3.77 (e, 3H), 3.91 (e, 3H),
1.1133	5.22 (s, 2H), 6.84 (s, 1H), 6.91 (dd, J = 1.8, 8.4 Hz, 1H), 6.98 (d, J = 8.4 Hz, 1H), 6.98 (d, J = 1.8 Hz, 1H), 7.28-7.47 (m, 7H),
	7.68-7.73 (m, 2H)
	IR (KBr) 1516, 1481, 1381, 1363, 1332, 1238, 1228, 1175, 1147, 1080, 1036, 865, 843, 800 cm ⁻¹

Table 224

	mp 154·155 %
	111 NMR (CDCL ₃) δ 1.15 (t, $J = 7.2$ Hz, 3H), 1.75 (d, $J = 0.9$ Hz, 3H), 1.79 (d, $J = 0.9$ Hz, 3H), 2.54 (s, 3H), 3.21 (s, 3H), 3.72
1.1134	1-1134 (q, J = 7.2 Hz, 211), 3.78 (s, 311), 3.88 (s, 311), 4.63 (d, J = 6.9 Hz, 211), 5.54 (m, 111), 6.85 (s, 111), 6.95-6.98 (m, 3H), 7.34-7.40
	(m, 2H), 7.68-7.74 (m, 2H)
	1R (KBr) 1519, 1481, 1467, 1365, 1335, 1245, 1231, 1184, 1157, 1081, 1038, 972, 889, 872, 840, 800 cm ⁻¹
	mp 136-137 C
	111 NMR (CDCE) 6 1.16 (t, J = 6.9 Hz, 311), 1.74 (e, 311), 1.78 (e, 3H), 3.61 (q, J = 6.9 Hz, 2H), 3.76 (e, 3H), 3.88 (e, 3H),
	4.63 (d, J = 6.9 Hz, 2H), 5.03 (s, 1H), 5.57 (m, 1H), 5.99 (s, 1H), 6.46 (s, 1H), 6.89-6.94 (m, 2H), 6.97 (d, J = 8.7 Hz, 1H), 7.01
- 6511-1	(d, J = 1.8 Hz, 111), 7.02 (dd, J = 1.8, 8.7 Hz, 1H), 7.51-7.67 (m, 2H)
	1R (KBr) 3433, 1613, 1522, 1489, 1464, 1443, 1402, 1383, 1364, 1270, 1235, 1214, 1174, 1140, 1113, 1072, 1036, 983, 825
	cm.
	mp 155-157℃
	1H NMR (CDCl3) 6 2.05 (t, J = 2.7 Hz, 1H), 2.76 (dt, J = 6.3, 2.7 Hz, 2H), 2.77 (s, 3H), 3.21 (s, 3H), 3.28 (s, 3H), 3.56 (s,
11136	[-1136] 311), 3.78 (s, 311), 4.23 (t, J = 6.3 Hz, 2H), 6.84 (s, 1H), 7.09 (d, J = 8.4 Hz, 1H), 7.36 (dd, J = 8.4, 2.1 Hz, 1H), 7.38 (d, J = 8.7)
	Hz, 211), 7.41 (d, $J = 2.1$ Hz, 111), 7.68 (d, $J = 8.7$ Hz, 211)
	IR (Nujol) 3285, 1608, 1519, 1176, 1161, 1119, 1079, 970, 816, 797 cm.1
	foam
	1H NMR (CDCl ₃) 6 1.83 (8, 3H), 2.58 (t, J = 6.6 Hz, 2H), 2.74 (8, 3H), 3.21 (8, 3H), 3.22 (8, 3H), 3.56 (8, 3H), 3.78 (8, 3H),
1.1137	1.1137 $\begin{bmatrix} 4.22 & (t, J) = 6.6 & 112, 211 \end{bmatrix}$, 4.84 (brs, 111), 4.89 (brs, 111), 6.84 (s, 111), 7.10 (d, J = 8.4 Hz, 111), 7.32 ~ 7.43 (m, 411), 7.68 (d, J = $\begin{bmatrix} 4.22 & t \\ 1.22 & t \end{bmatrix}$
	8.7 Hz, 2H),
ļ	IR (Nujol) 1608, 1519, 1176, 1150, 1119, 1078, 968, 869, 816 cm ⁻¹

Table 225

55

50	45	40	35	30	25	20	15	10	5
6-1138	fonm 1H NMR (C 4.89 (brs, 11 IR (Nujol) 3	$\mathrm{DCl_3}$) δ 1.81 (s, 3H), 2.55 (t, J = 6.6 Hz, 2H), 3.45 (s, 3H), 1H), 6.45 (s, 1H), 6.86 \sim 7.07 (m, 5H), 7.53 (d, J = 8.7 Hz, 2H), 1531, 3328, 1612, 1587, 1623, 1489, 1287, 1226, 1115, 1072,), 2.55 (t, J = 6.) ~7.07 (m, 511), 7, 1523, 1489, 1	6 Hz, 2H), 3.4 7.53 (d, J = 8. 287, 1226, 11	15 (s, 3H), 3.74 7 Hz, 2H), 15, 1072, 101	1 (s, 3H), 4.20	(t, J = 6.6 Hz,	. 2H), 4.85 (brs,	1H),
1.1139		0.01_3) δ 2.07 (t, J = 2.7 Hz, 1H), 2.72 (dt, J : $0.87 \sim 7.10$ (m, 5H), 7.63 (d, J = 8.7 Hz, 2H) 482, 3305, 1609, 1597, 1527, 1494, 1253, 12	2.7 Hz, 1H), 2.7 7.53 (d, J = 8.7 7, 1527, 1494, 1	'2 (dt, J = 6.6, 11z, 211) 253, 1240, 12	2.7 Hz, 2H), : 27, 1127, 111	3.45 (8, 3H), 3.7 8, 1079, 1010 o	'Б (в, ЗН), 4.2 m ⁻¹	1 (t, J = 6.6 Hz,	2H),
1-1140		MSO) δ 3.29 (s, 3H), 3.64 (s, 3H), 5.42 (s, 2H), 6.38 (s, 1H), 6.61 (dd, J, J = 8.6 Hz, 2H), 6.96 (d, J = 8.2 Hz, 1H), 7.19 (d, J = 7.8 Hz, 1H), 7.41 (32, 1611, 1566, 1523, 1488, 1430, 1400, 1380, 1241, 1113, 1071, 814 cm ⁻¹), 3.64 (s, 3H), 6 (d, J = 8.2 Hz . 1488, 1430, 14	5.42 (s, 2H), (,, 1H), 7.19 (d (00, 1380, 124	5.38 (s, 1H), 6 , J = 7.8 Hz, 1 1, 1113, 1071	.61 (dd, J =2.0 .H), 7.41 (d, J ³	, 8.2 Hz, 1H), - 7.8 Hz, 1H)	, 6.74 (d, J = 2.0 , 7.43 (d, J = 8.4	Hz, Hz,
1-1141	foam 14 NMR (C 2.1, 8.7 Hz, = 8.4 Hz, 21 IR (KBr) 34	IDCl ₃) δ 3.45 (s, 3H), d 3.75 (s, 3H), 3.92 (s, 3H), 5.53 (s, 2H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.94 (dd, J = 1H), 7.01 (d, J = 8.7 Hz, 1H), 7.10 (d, J = 2.1 Hz, 1H), 7.28 (d, J = 4.8 Hz, 1H), 7.52 (d, J = 4.8 Hz, 1H), 7.53 (d, J = 4.8 Hz,	, d 3.75 (s, 3H), 1z, 1H), 7.10 (d 1523, 1489, 14	3.92 (a, 3H), J = 2.1 Hz, 1 39, 1402, 128	5.63 (e, 2H), 6 H), 7.28 (d, J 2, 1112, 1073	.46 (s, 1H), 6.9 = 4.8 Hz, 1H), 1010, 814 cm	2 (d, J = 8.7 F 7.52 (d, J = 4.	Iz, 2H), 6.94 (dd 8 Hz, 1H), 7.53	, J = (d, J
1.1142	foam 1H NMR (CDCl ₃)	OCl ₃) δ 2.74 (8, 3H), 3.21 (8, 3H), 3.22 (8, 3H), 3.55 (8, 3H), d 3.78 (8, 3H), 3.91 (8, 3H), 5.19 (8, 2H), 6.60 (d, J = 6.84 (8, 1H), 7.15 (d, J = 8.4 Hz, 1H), 7.17 (d, J = 3.6 Hz, 1H), 7.36 (dd, J = 2.1, 8.4 Hz, 1H), 7.38 (d, J = 8.7 Hz, J = 2.1 Hz, 1H), 7.67 (d, J = 8.7 Hz, 2H) 28, 1519, 1481, 1365, 1177, 1150, 1079, 969, 876, 797 cm ¹	, 3.21 (s, 3H), 3 J = 8.4 Hz, 1H; 7 (d, J = 8.7 Hz, 1177, 1150, 10	.22 (s, 3H), 3 7.17 (d, J = 2H) 79, 969, 876,	55 (s, 3H), d 3 3.6 Hz, 1H), 7 797 cm ⁻¹	.78 (s, 3H), 3.9	((e, 3H), 5.15	2.74 (e, 3H), 3.21 (e, 3H), 3.22 (e, 3H), 3.55 (e, 3H), d 3.78 (e, 3H), 3.91 (e, 3H), 5.19 (e, 2H), 6.60 (d, J = 1H), 7.15 (d, J = 8.4 Hz, 1H), 7.17 (d, J = 3.6 Hz, 1H), 7.36 (dd, J = 2.1, 8.4 Hz, 1H), 7.38 (d, J = 8.7 Hz, Hz, 1H), 7.67 (d, J = 8.7 Hz, 2H) 142, 1H), 7.67 (d, J = 8.7 Hz, 2H) 1481, 1365, 1177, 1150, 1079, 969, 876, 797 cm. ¹	, J = Hz,

Table 226

F-1143	foam 111 NMR (CDCE) & 2.77 (s, 311), 3.21 (s, 311), 3.23 (s, 311), d. 3.56 (s, 311), d. 3.78 (s, 311), d. 18 (m, 211), d. 34 (m, 211), f.94 (m, 111), d. 18 (s, 111), f.11 (d, J = 8.4 Hz, 111), f.36 (dd, J = 2.1, 8.4 Hz, 111), f.38 (d, J = 8.7 Hz, 211), f.40 (d, J = 2.1 Hz, 111), f.67 (d, J = 8.7 Hz, 211) 7.67 (d, J = 8.7 Hz, 211) 118 (KBr) 1609, 1519, 1481, 1367, 1177, 1150, 1079, 970, 876, 797 cm. ⁴
1.1144	foam 11 INMR (CDCh3) & 2.75 (8, 311), 3.21 (8, 314), 3.55 (8, 314), d 3.78 (8, 314), 4.11 (m, 2H), 4.64 (m, 2H), 6.05 (t, J 1-1144 = 4.5 Hz, 1H), 6.06 (t, J = 5.1 Hz, 1H), 6.84 (8, 1H), 7.07 (d, J = 8.7 Hz, 1H), 7.35 (dd, J = 2.1, 8.7 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H) 211), 7.40 (d, J = 2.1 Hz, 1H), 7.67 (d, J = 8.7 Hz, 2H) 11R (KBr) 1609, 1519, 1481, 1364, 1177, 1151, 1079, 969, 874, 797 cm ⁻¹
1-1145	m.p 203-205 °C 'H NMR (CDCl ₃) δ 2.83 (s, 3H), 3.22 (s, 3H), 3.25 (s, 3H), 3.55 (s, 3H), d 3.79 (s, 3H), 4.30 (t, J = 1.8 Hz, 2H), 4.88 (t, J = 1.1145 lt, 2H), 6.84 (s, 1H), 7.20 (d, J = 8.7 Hz, 1H), 7.37 (dd, J = 2.1, 8.7 Hz, 1H), 7.39 (d, J = 8.7 Hz, 2H), 7.42 (d, J = 2.1 Hz, 1H), 7.67 (d, J = 8.7 Hz, 2H) 11(1), 7.67 (d, J = 8.7 Hz, 2H) 11(KBr) 3443, 1606, 1519, 1481, 1360, 1179, 1150, 1079, 877, 798 cm. ¹
1.1146	

Table 227

55

	45	40	35	30	25	20	15	10	5
4 = 5 2 = =	foam 1H NMR (CDC 1147 6.91 (d, J = 8.7 2H) 1R (KBr) 3411.	B.7 Hz, 2H), 6.97 (dd, J = 2.1, 8.1 Hz, 1H), 7.05 (d, J = 8.1 Hz, 1H), 7.08 (1.1 Left), 1589, 1523, 1489, 1404, 1224, 1114, 1071, 1010, 939, 816 cm ⁻¹	H), 3.45 (s, 3H) ld, J = 2.1, 8.1 l	Hz, 1H), 7.06 (1224, 1114, 10	4.17 (t, J = 1 (d, J = 8.1 Hz,	.8 Hz, 2H), 4.8 1H), 7.08 (d, 4.8	33 (t, J = 1.8 = 2.1 Hz, 1B	foam 1H NMR (CDCh.)	H),
	fonm '11 NMR (CDC 3.78 (s, 311), 4.8 J = 2.1 Hz, 1H) IR (KBr) 2232,	fourn 111 NMR (CDC3.) 6 1.14 (t, J = 7.5 Hz, 3H), 2.23 (q, J = 7.5 Hz, 2H), 2.71 3.78 (s, 3H), 4.80 (s, 2H), 6.84 (s, 1H), 7.20 (d, J = 9.0 Hz, 1H), 7.37 (dd, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 2H) J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 2H) IR (KBr) 2232, 1609, 1519, 1481, 1365, 1177, 1151, 1079, 970, 876, 797 cm. ⁴	= 7.5 Hz, 3H), 8, 1H), 7.20 (d, 9 7 Hz, 2H)	2.23 (q, 4 = 7. J = 9.0 Hz, 1H 1151, 1079, 97	6 Hz, 2H), 2.7), 7.37 (dd, J = 0, 876, 797 cn	71 (s, 3H), 3.2); 2.1, 9.0 Hz, 1)	t (e, 3H), 3.2' H), 7.38 (d, J	form II NMR (CDC4s) & 1.14 (t, J = 7.5 Hz, 3H), 2.23 (q, J = 7.5 Hz, 2H), 2.71 (s, 3H), 3.21 (s, 3H), 3.27 (s, 3H), 3.60 (s, 3H), 1.78 (s, 3H), 4.80 (s, 2H), 6.84 (s, 1H), 7.20 (d, J = 9.0 Hz, 1H), 7.37 (dd, J = 2.1, 9.0 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H), 7.42 (d, J = 2.1 Hz, 1H), 7.68 (d, J = 8.7 Hz, 2H) R (KBr) 2232, 1609, 1519, 1481, 1365, 1177, 1151, 1079, 970, 876, 797 cm ⁻¹	Ġ,
	mp >280°C (de "H NMR (DMS IIz, 1H), 6.84 (c IR (Nujol) 3160	mp >280°C (decomp.) ¹ H NMR (DMSO·da) δ 3.30 (s, 3H), 3.64 (s, 3H), 4.85 (s, 2H), 6.39 (s, 1H), 6.69 (dd, J = 8.4, 2.1 Hz, 1H), 6.84 (d, J = 8.7 Hz, 2H), 8.54 (s, 1H) IIz, 1H), 6.84 (d, J = 8.7 Hz, 2H), 6.94 (d, J = 8.4 Hz, 1H), 7.44 (d, J = 8.7 Hz, 2H), 8.54 (s, 1H) IR (Nujol) 3166, 1707, 1671, 1611, 1586, 1523, 1489, 1289, 1259, 1211, 1115, 1075, 1012, 814 cm ⁻¹	8, 3H), 3.64 (8, 3), 6.94 (d, J = 8), 11, 1586, 1523	3H), 4.85 (s, 2 1.4 Hz, 1H), 7.4 1.489, 1288, 1	H), 6.39 (s, 11 14 (d, J = 8.7 l 259, 1211, 11	1), 6.69 (dd, J 1z, 2H), 8.54 (15, 1075, 1012	= 8.4, 2.1 H ₂ 8, 1H)	(decomp.) MSO-da) \(\beta \) 3.30 (s, 3H), 3.64 (s, 3H), 4.85 (s, 2H), 6.39 (s, 1H), 6.69 (dd, J = 8.4, 2.1 Hz, 1H), 6.79 (d, J = 2.1 MSO-da) \(\beta \) 3.30 (s, 3H), 6.94 (d, J = 8.4 Hz, 1H), 7.44 (d, J = 8.7 Hz, 2H), 8.54 (s, 1H) 14 (d, J = 8.7 Hz, 2H), 6.94 (d, J = 8.4 Hz, 1H), 7.44 (d, J = 8.7 Hz, 2H), 8.54 (s, 1H) 166, 1707, 1671, 1611, 1586, 1523, 1489, 1289, 1211, 1115, 1075, 1012, 814 cm ⁻¹	2.1
3 7 7	foam 1H NMR (CDC) J = 8.7 Hz, 2H) IR (KBr) 3432,	(1)C(1 ₃) δ 1.91 (8, 3H), 3.45 (8, 3H), 3.75 (8, 3H), 4.89 (8, 2H), 5.29 (brs, 1H), 5.36 (b. 2H), 6.97 (dd, J = 8.4, 2.1 Hz, 1H), 7.07 (d, J = 8.4 Hz, 1H), 7.08 (d, J = 2.1 Hz, 1H), 132, 1612, 1588, 1523, 1489, 1288, 1224, 1192, 1113, 1070, 1010, 938, 825, 813 cm ⁻¹	H), 3.45 (s, 3H), .4, 2.1 Hz, 1H), .3, 1489, 1288,	, 3.75 (s, 3H), , 7.07 (d, J = 8.4 1224, 1192, 11	4.89 (s, 2H), 5 4 Hz, 1H), 7.0 13, 1070, 101	.29 (bre, 1H), (8 (d, J = 2.1 H)	5.36 (brs, 1H) 2, 1H), 7.54 (c 3 cm·l	finam IH NMR (CDCl ₃) & 1.91 (s, 3H), 3.45 (s, 3H), 3.75 (s, 3H), 4.89 (s, 2H), 5.29 (brs, 1H), 5.36 (brs, 1H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.97 (dd, J = 8.4, 2.1 Hz, 1H), 7.07 (d, J = 8.4 Hz, 1H), 7.08 (d, J = 2.1 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) IR (KBr) 3432, 1612, 1588, 1523, 1489, 1228, 1122, 1113, 1070, 1010, 938, 825, 813 cm ⁻¹	Ġ,
		I)(1 ₃) δ 3.45 (s, 3H), 3.75 (s, 3H), 4.98 (d, J = 1.8 Hz, 2H), 5.92 (dt, J = 1), 6.92 (d, J = 8.7 Hz, 2H), 6.98 (dd, J = 8.4, 2.1 Hz, 1H), 7.09 (d, J = 2. Tz, 2H) 10, 1612, 1589, 1623, 1489, 1403, 1224, 1112, 1070, 1011, 938, 826 cm ⁻¹	H), 3.75 (s, 3H), 1z, 2H), 6.98 (d 3, 1489, 1403,	4.98 (d, J = 1. d, J = 8.4, 2.1 1224, 1112, 10	8 Hz, 2H), 5.5 Hz, 1H), 7.09 70, 1011, 938	2 (dt, J = 7.5, (d, J = 2.1 Hz)	1.8 Hz, 1H),	(d, J = 8.7 Hz, 2H), 3.75 (s, 3H), 4.98 (d, J = 1.8 Hz, 2H), 5.92 (dt, J = 7.5, 1.8 Hz, 1H), 6.45 (s, 1H), 6.46 (d, J H), 6.92 (d, J = 8.7 Hz, 2H), 6.98 (dd, J = 8.4, 2.1 Hz, 1H), 7.09 (d, J = 2.1 Hz, 1H), 7.11 (d, J = 8.4 Hz, 1H), 7.53 (d, J = 8.4 Hz, 1H), 7.54 (d, J = 8.4 Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz, 1Hz,	l, J

Table 228

111 11152 = (d,	
	I NMR (CDCB) 6 3.45 (8, 3H), 3.75 (8, 3H), 4.89 (d, J = 2.1 Hz, 2H), 6.97 (dt, J = 13.8, 2.1 Hz, 1H), 6.46 (6, 1H), 6.61 (d. J
<u>ਤੰ</u>	= 13.8 Hz, 111), 6.92 (d, J = 8.7 Hz, 2H), 6.97 (dd, J = 8.4, 2.1 Hz, 1H), 7.04 (d, J = 8.4 Hz, 1H), 7.09 (d, J = 2.1 Hz, 1H), 1.04
_	(d, J = 8.7 Hz, 2H)
21	IR (KBr) 3427, 1612, 1588, 1523, 1489, 1403, 1226, 1192, 1176, 1113, 1070, 1011, 938, 918, 826 cm ⁻¹
Int	mp188-189 °C:
	11 NMR (CDCB) 3 2.84 (8, 311), 3.33 (8, 311), 3.74 (6, 311), 3.98 (6, 311), 4.18 (6, 311), 5.38 (6, 211), 7.05 (6, 111), 7.36-7.64 (m,
01 1103	1011), 8.61 (d, J = 8.7 Hz, 111), 8.82 (brs, 111)
118	IR(KBr) 3381, 2942, 1724, 1538, 1481, 1369, 1296, 1177, 1163, 1082, 963, 821 cm ⁻¹
E	mp78-80 °C
	1H NMR (CDCI.) 6 2.17 (8, 3H), 2.67 (8, 3H), 3.13 (8, 3H), 3.57 (8, 3H), 3.79 (8, 3H), 5.19 (8, 2H), 6.83 (8, 1H), 7.15 (d, J =
1.1154 8.0	8.6 Hz, 1H), 7.31-7.45 (m, 7H), 7.62 (d, $J = 8.2 \text{ Hz}$, 1H), 7.79 (e, 1H), 8.44 (d, $J = 8.6 \text{ Hz}$, 1H), 8.51 (brs, 1H)
<u> </u>	[R(KBr) 3398, 2939, 1739, 1629, 1477, 1368, 1287, 1240, 1177, 1119, 1078, 967, 815, 796, 622 cm ⁻¹
iii	mp74-75, C
	1H NMR (CDCl ₃) δ 1.68 (s, 3H), 1.76 (s, 6H), 1.81 (s, 3H), 2.69 (s, 3H), 3.24 (s, 3H), 3.52 (s, 3H), 3.80 (s, 3H), 3.88 (s, 3H),
1.1155	3.88-4.02 (m, 211), 4.64 (d, J = 7.2 Hz, 2H), 5.25 (t, J = 7.8 Hz, 1H), 5.50 (t, J = 5.7 Hz, 1H), 6.88 (s, 1H), 7.08-7.38 (m, 6H)
- E	IR(KBr) 3412, 2939, 1697, 1519, 1483, 1366, 1268, 1207, 1178, 1080, 964, 808, 523 cm ⁻¹
E	mp72-74 C
<u> </u>	
1.1156 6.6 Hz, 2F	6 Hz, 2H), 5.68 (t, J = 5.7 Hz, 1H), 7.04 (s, 1H), 7.27 (d, J = 8.1 Hz, 1H), 7.39-7.56 (m, 4H), 8.60 (d, J = 8.4 Hz, 1H), 8.81
<u>e</u>	(brs, 1H)
£1	IR(KBr) 3407, 2940, 1731, 1601, 1638, 1481, 1366, 1294, 1178, 1165, 1079, 805, 562 cm.

¹H NMR (CDCl₃) δ 1.76 (8, 3H), 1.81 (8, 3H), 3.48 (8, 3H), 3.75 (8, 3H), 3.91 (8, 3H), 4.61 (d, J = 7.2 Hz, 2H), 5.53 (t, J = 6.0

IR(KBr) 3423, 2932, 1608, 1628, 1490, 1459, 1250, 1113, 1071, 805, 757 cm-1

ლp68-69 ზ

1-1160

Hz, 1H), 5.91 (brs, 2H), 6.47 (s, 1H), 6.83 (d, J = 8.1 Hz, 2H), 6.95 (s, 1II), 7.06-7.09 (m, 2H), 7.16 (s, 1H), 7.26 (s, 1H)

IR(KBr) 3406, 2933, 1524, 1490, 1397, 1270, 1241, 1116, 1076, 1069, 811, 773 cm-1

Table 229

55

9	MpG N	7 6.6 ll	¥ 3	e z	IR(K	39dui	N Hr G	IRCK	mp72	E Z	0 4.38	311), (
5	mp(i8-69-7) IH NMR (CDCI ₃) & 1.70 (s, 3H), 1.77 (s, 3H), 1.81 (s, 3H), 2.70 (s, 3H), 3.25 (s, 3H), 3.55 (s, 3H), 3.81 (s, 3H), 4.64 (d, J =	57 6.6 Hz, 2H), 5.27 (t, J = 7.5 Hz, 1H), 5.50 (t, J = 6.9 Hz, 1H), 6.86 (9, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.25-7.40 (m, 3H), 7.57 (d, J = 8.1 Hz, 1H), 7.76 (9, 1H)	1K(KIST) 3422, 2939, 1701, 1919, 1480, 1308, 1203, 1177, 1078, 997, 801, 922 cm.	mp64-66 C 18 H NMR (CDCla) & 3.47 (e, 3H), 3.74 (e, 3H), 5.19 (e, 2H), 5.86 (bre, 1H), 6.44 (e, 1H), 7.08-7.69 (m, 11H), 8.06 (bre, 1H)	IR(KBr) 3399, 2938, 1726, 1624, 1604, 15263, 1487, 1403, 1302, 1208, 1178, 1068, 695, 520 cm ⁻¹	որ68-70 ℃	1H NMR (CDCl ₃) & 2.57 (8, 3H), 3.57 (8, 3H), 3.76 (8, 3H), 5.21 (8, 2H), 6.84 (8, 1H), 7.11-7.73 (m, 11H), 8.29 (brs, 1H)	IR(KBr) 3422, 2939, 1728, 1605, 1523, 1482, 1397, 1367, 1233, 1209, 1178, 1078, 795, 725, 542 cm ⁻¹	աթ72-73 Ն	IH NMR (CDCl ₃) 6 1.75 (a, 6H), 1.78 (s, 3H), 1.82 (s, 3H), 3.48 (s, 3H), 3.75 (s, 3H), 3.76 (d, J = 7.2 Hz, 2H), 3.89 (s, 3H),	4.38 (brs, 1H), 4.61 (d, J = 6.9 Hz, 2H), 5.41 (t, J = 6.3 Hz, 1H), 5.53 (t, J = 6.9 Hz, 1H), 5.68 (brs, 1H), 5.94 (brs, 1H), 6.49 (s, J = 6.9 Hz, 1H), 6.49 (s, J = 6.9 Hz, IH), 6.49 (brs, IH),	311), 6.69 (d, J = 8.1 Hz, 1H), 6.95 (s, 1H), 7.06 (s, 1H), 7.13.7.15 (m, 2H), 7.26 (s, 1H)
o	1.70 (s, 3H), 1	J = 7.5 IIz, 1H) (9, 1H)	1/01, 1519, 14	3.47 (8, 311), 3	1726, 1624, 16		2.57 (s, 3H), 3	1728, 1605, 15	,	1.75 (s, 6H), 1	$I_{\rm r}$, $J=6.9~{\rm Hz}$, $2.$	1z, 1H), 6.95 (e
5	1.77 (s, 3H), 1.8	, 5.50 (t, J = 6.	1308, 1205	.74 (s, 3H), 5.1	04, 15263, 148		.67 (s, 3H), 3.7	23, 1482, 1397		.78 (s, 3H), 1.8	H), 5.41 (t, J =	s, 1H), 7.06 (s.
o	81 (s, 3H), 2.70	9 Hz, 1H), 6.8	, 1177, 1078,	9 (s, 2H), 5.8G	17, 1403, 1302		6 (a, 3H), 5.21	, 1367, 1233,		32 (s, 3H), 3.48	6.3 Hz, 1H), 5	1H), 7.13-7.15
5) (s, 3H), 3.25	3 (8, 111), 7.10 (991, 601, 622 c	(brs, 111), 6.44	1208, 1178, 10		(s, 2H), 6.84 (s	1209, 1178, 10		s (s, 3H), 3.75 (.53 (t, J = 6.9 H	(m, 2H), 7.26
o	s, 3H), 3.55 (e	d, J = 8.4 Hz,	ш.	(s, 1H), 7.08-	68, 695, 520 c		ı, 1H), 7.11-7.7	18, 795, 725, 6		s, 3H), 3.76 (d	(z, 1H), 5.68 (b	(e, 1H)
, ,	, 3H), 3.81 (s	IH), 7.25-7.40		7.69 (m, 11H)	m.i		3 (m, 11H), 8	12 cm·1		J = 7.2 Hz	гв, 1Н), 6.94	
	, 3H), 4.64 (d	0 (m, 3H), 7.6), 8.06 (brs, 11			3.29 (brs, 1H)			2H), 3.89 (s,	(bre, 1H), 6.4	
	J =	Ġ,	T							Ĥ.	<u>e</u>	

1.1157

1.1168

322

1.119

Table 230

	111 NMR (CDCL ₃) & 1.76 (a, 611), 1.79 (a, 311), 1.81 (a, 311), 3.50 (a, 314), 3.75 (a, 314), 3.80 (d, J = 6.6 Hz, 2H), 4.36 (brs, 1H),
1.1162	1-1162 4.61 (d, J = 6.9 Hz, 2H), 5.39 (t, J = 6.3 Hz, 1H), 5.53 (t, J = 6.6 Hz, 1H), 5.68 (brs, 1H), 6.90 (brs, 1H), 6.43 (s, 1H), 6.73 (d, J
	= 8.4 Hz, 111), 6.95 (s, 111), 7.05 (s, 111), 7.26 (d, J = 0.9 Hz, 111), 7.47 (dd, J = 2.1, 8.4 Hz, 111), 7.59 (d, J = 2.1 Hz, 114)
	114(KBr) 3484, 2931, 1607, 1525, 1488, 1310, 1243, 1114, 1070, 1009, 808 cm ⁻¹
	mp87-89 °C
	11 NMR (CDCB) 6 2.81 (8, 311), 3.60 (8, 311), 3.77 (8, 311), 3.98 (d, $J = 6.3$ Hz, 211), 4.80 (d, $J = 6.3$ Hz, 211), 6.07 (t, $J = 6.0$
:91 	11z, 111), 6.25 (t, J = 6.3 Hz, 111), 6.46-6.53 (m, 211), 6.86 (e, 111), 7.05-7.38 (m, 4H)
	IR(KBr) 3411, 2937, 1628, 1527, 1482, 1364, 1233, 1176, 1077, 960, 879, 792, 524 cm ⁻¹
	amorphous
	111 NMR (CDCL) 6 2.68 (8, 311), 3.13 (8, 311), 3.43 (8, 311), 3.54 (8, 311), 3.80 (8, 311), 5.19 (8, 2H), 6.87 (8, 1H), 7.16 (d, J=
1.1164	8.7 Hz, 1H), 7.32.7.49 (m, 9H), 7.69 (d, J = 8.4 Hz, 2H)
	IR (KBr) 1698, 1522, 1482, 1367, 1080, 1014, 947, 815, 795 cm ⁻¹
	form
	111 NMR (CDCI ₃) & 1.47 (8, 3H), 1.72 (8, 3H), 1.77 (8, 3H), 1.81 (8, 3H), 2.71 (8, 3H), 3.24 (8, 3H), 3.51 (8, 3H), 3.80 (8, 3H),
1.1165	1.1165 4.37 (d, J = 7.8 Hz, 2H), 4.64 (d, J = 6.6 Hz, 2H), 5.29 (t, J = 7.8 Hz, 1H), 5.60 (t, J = 6.6 Hz, 1H), 6.88 (s, 1H), 7.09 (d, J = 8.4
·	Hz, 1H), 7.27 (d, J = 8.7 Hz, 2H), 7.35 (dd, J = 8.4, 2.3 Hz, 1H), 7.39 (d, J = 2.3 Hz, 1H), 7.66 (d, J = 8.7 Hz, 2H)
	IR(KBr) 1696, 1521, 1482, 1366, 1177, 1080, 972, 946, 814, 795 cm ⁻¹
	mp 135-136 C
	11 NMR (CDC13) 6 1.77 (9, 3H), 1.81 (9, 3H), 2.71 (9, 3H), 3.24 (9, 3H), 3.54 (6, 3H), 3.80 (6, 3H), 4.64 (d, J = 6.7 Hz, 2H),
1.1166	5.50 (t, J = 6.7 Hz, 1H), 6.87 (s, 1H), 7.10 (d, J = 8.4 Hz, 1H), 7.34 (d, J = 8.1 Hz, 2H), 7.35 (dd, J = 8.4, 2.2 Hz, 1H), 7.39 (d,
	J = 2.2 Hz, 1H), 7.69 (d, $J = 8.1 Hz$, 2H)
	IR (KBr) 1702, 1522, 1481, 1362, 1275, 1150, 1081, 1014, 978, 817, 793 cm ⁻¹

Table 231

1.1167	mp 169-171 °C 'II NMR (DMSO-dc)
f-1168	
1.1169	mp 183-18 'H NMR ((5.53 (m, 11 112, 111), 7 IR (KBr) 3
1.1170	mp 178-179 °C ¹ H NMR (CDCl ₃) δ 1.76 (9, 3H), 1.82 (8, 3H), 2.80 (8, 3H), 3.47 (8, 3H), 3.76 (8, 3H), 4.62 (d, J = 7.2 Hz, 2H), 5.53 (m, 1H), 5.72 (8, 1H), 5.86 (8, 1H), 6.47 (8, 1H), 6.94 (dd, J = 1.8, 8.1 Hz, 1H), 6.98 (d, J = 8.1 Hz, 1H), 7.05 (d, J = 1.8 Hz, 1H), 7.72-7.77 (m, 2H), 7.79-7.85 (m, 2H) ¹ R (KBr) 3420, 1587, 1527, 1482, 1449, 1430, 1416, 1390, 1357, 1290, 1240, 1214, 1198, 1135, 1115, 1073, 1019, 998, 975, 962, 937, 831 cm. ⁴

Table 232

	mp 136-139 °C ···································
	111), 6.36-6.46 (m, 211), 6.79-6.84 (m, 211), 6.89 (s, 111), 6.95 (s, 111), 7.18-7.24 (m, 111), 7.47-7.52 (m, 211) 11 (KBr) 3600-2800(hr), 1626, 1609, 1631, 1493, 1460, 1444, 1388, 1345, 1232, 1207, 1173, 1124, 1050, 1028 cm ⁻¹
	mp 113-114 °C. HI NMR (CDCE) \$\delta = 3.00 (8, GH), 3.77 (8, 3H), 3.78 (8, 3H), 6.78-6.84 (m, 2H), 6.88 (8, 1H), 6.98 (8, 1H), 7.31 (dd, J = 2.1,
1.1172	~ ~
	mp 141-143 °C (CDCh) & 1.75 (d, J = 0.9 Hz, 3H), 1.78 (d, J = 0.9 Hz, 3H), 2.99 (s, 6H), 3.50 (s, 3H), 3.74 (s, 3H), 3.78 (d, J = 6.6
1.1173	11z, 21l), 3.93 (br, 11l), 5.35-5.40 (m, 11l), 5.86 (s, 11l), 6.44 (s, 11l), 6.74-6.86 (m, 3H), 7.30-7.38 (m, 4H) 1R (KBr) 3600-2800(br), 1625, 1611, 1630, 1491, 1458, 1444, 1400, 1348, 1333, 1250, 1217, 1103, 1075 cm ⁻¹
	mp 226-228 °C
1.1174	1-1174 1H), 7.30-7.49 (m, 1H) IR (KBr) 3600-2800(br), 1608, 1589, 1520, 1471, 1446, 1384, 1358, 1270, 1250, 1238, 1210, 1172, 1141, 1093, 1031, 997
	cm.'
1.1175	1.1175 H NMR (CDCh) & 3.21 (8, 3H), 3.93 (8, 3H), 5.22 (8, 2H), 6.97 (8, 2H), 7.03 (8, 1H), 7.30-7.55 (m, 11H)
	IR (KBr) 3600-2800(br), 1602, 1517, 1468, 1368, 1348, 1248, 1210, 1176, 1151, 1095, 1038, 989 cm ⁻¹

Table 233

55

50	45	40	35	30	25	20	15	10	5
1.1176	mp 98-100 111 NMR (C 7.03 (m, 31) 113 (KBr) 36	1 - 1 - 1 - 1 - 1	(1), 1.79 (s, 311), 7.45 (s, 111), 7.83, 1519, 144	(), 3.21 (s, 3H), .49 (s, 1H), 7.5 0, 1449, 1365,	3.91 (s, 3H), 3.7.56 (m, 1H 1260, 1202, 1	4.65 (d, J = 6. 1)	9 Hz, 2H), 5.0	1.76 (s, 3H), 1.79 (s, 3H), 3.21 (s, 3H), 3.91 (s, 3H), 4.65 (d, J = 6.9 Hz, 2H), 5.53-5.58 (m, 1H), 6.94-(m, 2H), 7.45 (s, 1H), 7.49 (s, 1H), 7.51-7.56 (m, 1H)), 1604, 1583, 1519, 1470, 1449, 1365, 1269, 1202, 1177, 1161, 1095, 1041, 972 cm. ¹	6.94-
1.1177	mp 118-120 111 NMR (C 7.23-7.37 (c 1R (KBr) 36	8 1.76 (s, 31 7.44 (s, 111), 7 0(br), 1626, 16	I), 1.79 (s, 311 .46 (s, 111) 309, 1526, 149), 3.91 (a, 3H), 0, 1429, 1253,	4.64 (d, J = (3.9 Hz, 2H), 5.	63-5.58 (m, 1	H), 6.88-7.02 (m	6H),
1.1178	mp 161-164 ℃ HI NMR (CDCh) δ 3.00 (s, 3H), 3.79 (s, 3H), 3.80 (s, 3H), 6.78-6.83 (m, 2H), 6.90 (s, 1H), 6.97 (s, 1H), 7.47-7.52 (m, 2H), 7.71 (d, J = 1.8 Hz, 1H), 8.37 (d, J = 8.7 Hz, 1H), 8.46 (br s, 1H) IR (KBr) 3600-2800(br), 1716, 1613, 1632, 1605, 1487, 1463, 1384, 1357, 1280, 1195, 1172, 1059, 1033 cm ⁻¹	8 3.00 (s, 31 , 111), 8.37 (d, 4	I), 3.79 (s, 31ľ, J = 8.7 IIz, 1H 313, 1632, 150), 3.80 (s, 3H), 1), 8.46 (br s, 1 5, 1487, 1463,	6.78-6.83 (m, H) 1384, 1357, 1	2H), 6.90 (s, 1 280, 1195, 11	(H), 6.97 (s, 1)	H), 7.47-7.52 (m. 3 cm ⁻¹	2H),
F-1179		δ 1.74 (e, 31 .4 Hz, 1H), 6.8(10(br), 1612, 15	l), 1.78 (s, 3H) 0-6.83 (m, 2H) 532, 1495, 146), 3.00 (s, 6H),), 6.90 (s, 1H), 0, 1444, 1385,	3.78 (s, 3H), 3 6.94 (s, 1H), 7 1366, 1273, 1	3.79 (e, 3H), 4.5 7.38-7.42 (m, 1 1257, 1203, 100	29 (d, J = 6.6 l H), 7.48-7.56 59, 1039, 1029	fz, 1H), 5.35-5.4 (m, 3H)	0 (m,
80	11 NMR (CDCh) 6 1.57 (d, J = 6.3Hz, 3H), 2.26 (s, 3H), 5.28 (s, 3H), 5.18 (s, 2H), 5.22 (q, J = 6.3 Hz, 1H), 7.02 (d, J = 8.4 [c, 1], 7.12 (s, 1H), 7.15 (s, 1H), 7.23 (d, J = 8.4 & 2.1 Hz, 1H), 7.30 · 7.51 (m, 10H) 11 (KBr) 3557, 1605, 1486, 1370, 1235, 1177, 1149, 1078, 1017 cm ⁻¹	UCl ₃) δ 1.57 (d, J = 6.3Hz, 3H), 2.26 (s, 3H), 2.28 (s, 3H), 5.18 (s, 2H), 5.2 2 (s, 1H), 7.15 (s, 1H), 7.23 (d.d, J = 8.4 & 2.1 Hz, 1H), 7.30 · 7.51 (m, 10H) 57, 1605, 1486, 1370, 1235, 1177, 1149, 1078, 1017 cm ⁻¹	6.3Hz, 3H), 2), 7.23 (d.d, J 1235, 1177, 1	= 8.4 & 2.1 Hz = 1149, 1078, 10	28 (s, 3H), 6.1 , 1H), 7.30 - 7 17 cm ⁻¹	8 (s, 2H), 5.22 .51 (m, 10H)	(q, J = 6.3 Hz	, 1H), 7.02 (d, J	= 8.4
18	¹ H NMR (CDCl ₃) δ 1.66 (s, 6H), 2.27 (s, 3H), 2.28 (s, 3H), 3.20 (s, 3H), 4.22 (s, 1H), 5.22 (s, 2H), 7.06 (d, J = 8.4 Hz, 1H), 7.12 (s, 1H), 7.14 (s, 1H), 7.23 (d.d, J = 8.4 & 2.1Hz, 1H), 7.30 · 7.51 (m, 10H) ¹ R (KBr)3544,3441, 1604, 1512, 1485, 1367, 1222, 1173, 1149 cm ⁻¹	δ 1.66 (s, 6H) s, 1H), 7.23 (d. 1, 1604, 1512,	, 2.27 (8, 3H), d, J = 8.4 & 2 1486, 1367, 12	2.28 (s, 3H), 5. .1Hz, 1H), 7.30 ?22, 1173, 1149	3.20 (s, 3H), 4 0 - 7.51 (m, 10 9 cm ⁻¹	.22 (s, 1H), 5.1)H)	22 (s, 2H), 7.0	6 (d, J = 8.4 Hz,	1H).

Table 234

	II NWI (CDCII) 0 1:50 (C 0 - 1:5115; 01); 5:50 (C) 0 1:50 (C) 0 1:50 (C)
1.1182	1.1182 (d, .1 = 8.4112, 111), 7.03 · 7.11 (m, 211), 7.14 (s, 111), 7.15 (s, 111), 7.29 · 7.46 (m, 411)
	IR (KBr) 3510, 1605, 1515, 1488, 1369, 1263, 1177, 1147, 1117 cm ⁻¹
	11 NMR (CHCL) & 1.29 (d. J = 6.9Hz, GH), 2.27 (s, 3H), 2.28 (s, 3H), 3.20 (s, 3H); 3.27 (qintet, J = 6.9Hz, 1H), 4.76 (s, 1H),
	6.81(d, J = 7.8112, 1H), 7.07(d.d, J = 7.8 & 2.1 Hz, 1H), 7.11 (s, 1H), 7.15 (s, 1H), 7.20 (d, J = 2.1 Hz, 1H), 7.34 (d, J = 8.7 Hz,
1.1183	
	IR (KBr) 3511, 1606, 1484, 1356, 1174, 1151 cm.
 	1H NMR (CDC11) 5 1.23 (t, J = 8.1Hz, 3H), 1.77 (s, 3H), 1.82 (s, 3H), 2.26 (s, 3H), 2.29 (s, 3H), 2.70 (q, J = 8.1Hz, 2H), 3.20
	(s, 311), 4.58 (d, $J = 6.6$ Hz, 211), 5.48 · 5.57 (m, 1H), 6.90 (d, $J = 7.8$ Hz, 1H), 7.08 · 7.13 (m, 2H), 7.16 (s, 2H), 7.23 · 7.47 (m, 18)
1.1184	4H)
	IR (KBr) 1605, 1485, 1369, 1352, 1236, 1201, 1174, 1150, 1133, 1008 cm. ¹
	1H NMR (CDCl ₃) 6 1.23 (t, J = 7.5Hz, 3H), 1.76 (8, 3H), 1.81 (8, 3H), 2.27 (8, 3H), 2.29 (8, 3H), 2.70 (q, J = 7.5Hz, 2H),
1.1185	1.1185 4.57 (d, J = 6.6 Hz, 2H), 4.79 (brs, 1H), 5.49 · 5.58 (m, 1H), 6.83 · 6.92 (m, 3H), 7.08 · 7.19 (m, 4H), 7.27 (.d, J = 8.4 Hz, 2H)
_	IR (KBr) 3529, 1608, 1519, 1487, 1241, 1136, 1024 cm ⁻¹
	1H NMR (CDCl ₃) 6 1.23 (d, J = 1.8Hz, 6H), 1.76 (g, 3H), 1.82 (g, 3H), 2.27 (g, 3H), 2.29 (g, 3H), 3.20 (g, 3H), 3.40 (quintet,
1.1186	1.1186 J = 1.8Hz, 1H), 4.58 (d, J = 6.6 Hz, 2H), 5.48 - 5.59 (m, 1H), 6.90 (d, J = 7.8 Hz, 1H), 7.10 · 7.44 (m, 8H)
	IR (KBr)1602, 1468, 1369, 1232, 1174, 1151 cm ⁻¹
	1H NMR (CDC13) & 1.24 (d, J = 6.9Hz, 6H), 1.76 (s, 3H), 1.81 (s, 3H), 2.27 (s, 3H), 2.29 (s, 3H), 3.40 (quintet, J = 6.9Hz,
1-1187	
	IR (KBr) 3265, 1607, 1519, 1486, 1448, 1383, 1232, 1170 cm ⁻¹

Table 235

	1H NMR (CDCL1) 6 1.31 (d, J = 6.9Hz, 6H), 1.44 (s, 3H), 1.67 (s, 3H), 2.97 (quintet, J = 6.9Hz, 1H), 3.78 (s, 3H), 3.80 (s,
901	3H), 3.92 (s, 3H), 4.20 · 4.30 (broad, 1H), 5.17 · 5.30 (m, 1H), 6.96 (s, 1H), 6.99 (s, 1H), 7.07 · 7.35 (m, 5H), 7.52 (d, J = 8.1
2011-1	112, 211)
	IR (KBr) 3422, 1601, 1529, 1492, 1462, 1378, 1341, 1257, 1203, 1138, 1028 cm ⁻¹
	111 NMR (CDCl ₃) & 2.67 (8, 3H), 3.13 (8, 3H), 3.57 (8, 3H), 3.79 (8, 3H), 5.19 (6, 2H), 6.84 (8, 1H), 7.15 (d, J = 9.0 Hz, 1H),
1.1189	$ 7.31 \cdot 7.50 \text{ (m, 8H)}, 7.55 \text{ (d.d, J} = 12.0 & 1.8 \text{ Hz, 1H)}, 8.34 \cdot 8.41 \text{ (m, 1H)}$
	IR (KBr)3428, 1740, 1601, 1535, 1482, 1366, 1292, 1238, 1177, 1164, 1112, 1079, 1013cm ⁻¹
	111 NMR (CDCl3) & 1.48 (s, 3H), 1.70 (s, 3H), 1.77 (s, 3H), 1.81 (s, 3H), 2.70 (s, 3H), 3.24 (s, 3H), 3.55 (s, 3H), 3.81 (s,
1.1190	1-1190 3H), 4.09 · 4.20 (m, 1H), 4.53 · 4.68 (m, 3H), 5.18 · 5.30 (m, 1H), 5.43 · 5.54 (m, 1H), 6.86 (s, 1H), 7.06 · 7.51 (m, 6H)
	IR (KBr) 1702, 1521, 1482, 1367, 1204, 1177, 1115, 1080 cm ⁻¹
	1H NMR (CDCl ₃) & 1.75 (s, 6H), 1.78 (s, 3H), 1.82 (s, 3H), 3.49 (s, 3H), 3.74 (s, 3H), 3.79 (d, J = 6.3Hz, 2H), 4.61 (d, J =
	6.6Hz, 2H), 5.32 - 5.43 (m, 1H), 5.49 - 5.57 (m, 1H), 5.68 (s, 1H), 5.90 (s, 1H), 6.44 (s, 1H), 6.74 - 6.85 (m, 1H), 6.95 (s, 2H),
1.1191	7.05 (s, 1H), 7.29 - 7.38 (m, 2H)
	IR (KBr) 3527, 1624, 1530, 1491, 1248, 1221, 1197, 1125, 1105, 1072 cm ⁻¹
	1H NMR (CDCl ₃) & 1.75 (8, 3H), 1.78 (8, 3H), 3.49 (8, 3H), 3.73 (8, 3H), 3.78 (d, J = 6.9 Hz, 2H), 5.32 · 5.43 (m, 1H),
1.1192	1.1192 6.44 (s, 111), 6.73 · 6.97 (m, 4H), 7.26 · 7.37 (m, 2H)
	IR (KBr)3551,3437,3310, 1607, 1629, 1491, 1463, 1402, 1362, 1269, 1265, 1184, 1099,1070, 1013 cm ⁻¹
	1H NMR (CDCl ₃) & 2.28 (s, 3H), 2.30 (s, 3H), 3.00 (s, 6H), 5.16 (s, 2H), 5.69 (s, 1H), 6.80 (d, J = 8.7 Hz, 2H), 6.84 (d.d,
9	J = 8.1 & 2.1 Hz, 1H), 6.98 (.d, J = 8.1Hz, 1H), 6.99 (d, J = 2.1 Hz, 1H), 7.12(e, 1H), 7.13 (e, 1H), 7.27 (d, J = 8.7Hz, 2H),
1:1193	7.34 - 7.50 (m, 5H)
	IR (KBr)1605, 1625, 1490, 1417, 1242, 1199, 1127, 1006 cm ⁻¹

Table 236

	mp 174-175 C
FOLL	111 NMR (CDCL) & 3.48 (s, 311), 3.78 (s, 311), 4.41 (s, 411), 5.17 (s, 211), 5.71 (s, 111), 5.88 (s, 111), 6.48 (s, 111), 6.94-7.50 (m,
	1811), 7.86 (Allq, J = 8.4 Hz, 4H)
	1R (KBr) 3463, 3409, 1588, 1519, 1482, 15455, 1417, 1385, 1321, 1285, 1247, 1154, 1112, 1096, 1067, 1015 cm ⁻¹
	mp 165-167 °C
	111 NMR (CDCh) & 2.68 (8, 311), 3.14 (8, 311), 3.56 (8, 311), 3.81 (8, 3H), 4.40 (8, 4H), 5.20 (8, 2H), 6.86 (8, 1H), 7.09-7.50 (m,
9611-1	1811), 7.79 (ABq, J = 8.1 Hz, 4H)
	IR (KBr) 3434, 2938, 1606, 1596, 1518, 1478, 1455, 1368, 1335, 1293, 1268, 1239, 1174, 1157, 1118, 1079 cm ⁻¹
	mp 176-178 C
	111 NMR (CDCl.) 6 1.58 (8, 311), 1.66 (8, 311), 1.77 (8, 311), 1.81 (6, 311), 2.71 (8, 311), 3.24 (8, 311), 3.55 (8, 311), 3.64 (m, 211).
1.1196	3.80 (s, 311), 4.28 (t, J = 6.0 Hz, 1H), 4.64 (d, J = 6.9 Hz, 2H), 5.10 (m, 1H), 5.49 (m, 1H), 6.86 (s, 1H), 7.10 (d, J = 8.4 Hz,
	1H), 7.35 (dd, $J = 2.1$, 8.4 Hz, 1H), 7.39 (d, $J = 2.1$ Hz, 1H), 7.87 (ABq, $J = 8.7$ Hz, 4H)
	IR (KBr) 3434, 3321, 2939, 1517, 1477, 1366, 1325, 1292, 1269, 1240, 1176, 1166, 1120, 1077 cm ⁻¹
	mp 180-181 C
	11 NMR (DMSO) δ 1.74 (8, 311), 1.77 (8, 311), 2.87 (8, 311), 3.36 (8, 311), 3.51 (6, 3H), 3.79 (8, 3H), 4.68 (d, $J=6.6$ Hz, 2H),
1.1197	5.48 (m, 111), 7.10 (s, 1H), 7.28-7.30 (m, 3H), 7.45 (bs, 2H), 7.87 (ABq, J = 8.7 Hz, 4H)
	IR (KBr) 3340, 3238, 2939, 1598, 1518, 1481, 1362, 1333, 1291, 1270, 1239, 1172, 1161, 1120, 1076, 1007 cm.1
	lio
	111 NMR ((3DC)3) & 1.45 (8, 3H), 1.66 (8, 3H), 1.87 (8, 3H), 2.24 (8, 3H), 2.27 (8, 3H), 2.30 (8, 3H), 3.84 (8, 3H), 3.92 (6, 3H),
1-1198	3.95-4.03 (m, 1H), 4.50-4.58 (m, 1H), 5.22-5.29 (m, 1H), 6.87-6.99 (m, 4H), 7.09-7.17 (m, 3H), 7.80 (s, 1H), 8.34-8.42 (m, 1H)
	IR (CHCh) 3673, 3021, 1686, 1639, 1525, 1495, 1406, 1237, 1128, 1037 cm ⁻¹

Table 237

55

5	Ĥ l	Ê	H),	., .j	Ê
10	mp 177-179 °C. HI NMR (CDCh.) & 1.45 (s, GH), 1.66 (s, GH), 1.87 (s, GH), 2.29 (s, GH), 3.86 (s, GH), 3.95-4.04 (m, 2H), 4.50-4.59 (m, 2H), 5.23-5.29 (m, 2H), 6.90-6.95 (m, 4H), 7.10-7.15 (m, 2H), 7.19 (s, 2H) R (KRr) 2929, 1661, 1492, 1405, 1288, 1214, 1030, 869, 829 cm ⁻¹	mp 224-226 °C. 1H NMR (CDCh.)	nowder IH NMR (CDCla) & 1.77 (s, 3H), 1.82 (s, 3H), 2.80 (s, 3H), 3.21 (s, 3H), 3.56 (s, 3H), 3.79 (s, 3H), 4.67 (d, J = 6.6 Hz, 2H), 5.46-5.51 (m, 1H), 6.84 (s, 1H), 7.05 (d, J = 8.1 Hz, 1H), 7.22-7.26 (m, 1H), 7.36-7.41 (m, 2H), 7.67-7.71 (m, 2H), 8.35 (d, J = 1.8 Hz, 1H), 9.24 (s, 1H) 1.8 Hz, 1H), 9.24 (s, 1H) 1.8 (KBr) 3385, 2937, 1718, 1532, 1479, 1362, 1175, 1152, 1078, 973, 876, 797, 526 cm. ¹	mp 260-262 °C H NMR (DMSO) δ 2.27 (a, 6H), 3.87 (a, 6H), 7.00 (dd, J = 1.8, 8.1 Hz, 2H), 7.10 (d, J = 1.8 Hz, 2H), 7.21 (a, 2H), 7.48 (d, J = 8.1 Hz, 2H), 10.73 (a, 2H) = 8.1 Hz, 2H), 10.73 (a, 2H) IR (KBr) 3392, 3008, 1719, 1600, 1642, 1413, 1297, 1158, 1032, 905, 627 cm ⁻¹	mp 143·144 °C. 1. To (s, 3H), 1.82 (s, 3H), 3.61 (s, 3H), 3.67 (s, 3H), 3.73 (s, 3H), 3.87 (s, 3H), 4.62 (d, J = 6.9 Hz, 2H), 3.60 (m, 1H), 5.66 (s, 1H), 6.86·7.02 (m, 5H), 7.54 (d, J = 9 Hz, 2H) 1. (KBr) 3494, 2935, 1673, 1609, 1684, 1619, 1479, 1466, 1389, 1284, 1249, 1178, 1109, 1081, 1016, 829, 798 cm. 1
15	3.95-4.04 (m,	6 °C (1973) 6 2.88 (e, 311), 3.22 (e, 311), 3.54 (e, 311), 3.78 (e, 311), 6.43 (e, 111), 6.85 (e, 111), 7.01 (e, 111), 7.35-7.42 (m, 211), 7.65-7.72 (m, 211), 7.36 (d, J = 2.1 Hz, 111), 8.96 (e, 111) (e, 111), 3.3024, 2938, 1729, 1508, 1481, 1365, 1177, 1148, 1085, 884, 798, 524 cm ⁻¹	3.79 (s, 3H), 4 n, 2H), 7.67-7.	= 1.8 Hz, 2H)	4 °C (g, 3H), 1.82 (g, 3H), 3.61 (g, 3H), 3.67 (g, 3H), 3.73 (g, 3H), 3.87 (g, 3H), 4.62 (d, J = 6.9 m, 1H), 5.66 (g, 1H), 6.86-7.02 (m, 5H), 7.54 (d, J = 9 Hz, 2H) (494, 2935, 1673, 1609, 1684, 1519, 1479, 1456, 1389, 1284, 1249, 1178, 1109, 1081, 1016, 829, 798 cm ⁻¹
20	, 3.86 (s, GH),	6 °C (1974) 6 2.88 (8, 311), 3.22 (8, 311), 3.54 (8, 311), 3.78 (8, 311), 6.43 (8, 111), 6.85 (8, 310, 3), 7.35-7.42 (m, 211), 7.65-7.72 (m, 211), 7.96 (d, J = 2.1 Hz, 111), 8.94 (41, 3370, 3024, 2938, 1729, 1508, 1481, 1365, 1177, 1148, 1086, 884, 798, 524 cm ⁻¹	, 3.56 (s, 3H), 1), 7.36-7.41 (r 6, 797, 526 cm	2H), 7.10 (d, J	, 3.73 (s, 3H), 249, 1178, 110
25	I), 2.29 (s, 6H) 19 (s, 2H) 29 cm ¹	l), 3.78 (s, 3H) (m, 2H), 7.96 1177, 1148, 10	l), 3.21 (s, 3H) 22-7.26 (m, 1F	= 1.8, 8.1 Hz, 1032, 905, 62	J, 3.67 (e, 3H) J = 9 Hz, 2H) 1389, 1284, 13
30	II), 1.87 (s, 6I) 15 (m, 2II), 7. 1, 1030, 869, 8	II), 3.54 (s, 31) 211), 7.65-7.72 3, 1481, 1365,	H), 2.80 (s, 3l) 3.1 Hz, 1H), 7. 2. 1176, 1162,	H), 7.00 (dd, J	H), 3.61 (s, 3H , 5H), 7.64 (d, <u>), 1479, 1456,</u>
35	ill), 1.66 (s, 6 n, 4fl), 7.10-7 05, 1288, 121-	111), 3.22 (s, 3 7.35-7.42 (m, 38, 1729, 1500	311), 1.82 (s, 3), 7.05 (d, J = £	3H), 3.87 (s, 6]	3H), 1.82 (s, 3) , 6.86-7.02 (m
40) δ 1.45 (s, t), 6.90-6.95 (π 661, 1492, 14) & 2.88 (s, ? 8.4 Hz, 1H), 370, 3024, 29) & 1.77 (s, ²), 6.84 (s, 1H) (s, 1H)) & 2.27 (s, (1,73 (s, 2H) 008, 1719, 16) & 1.76 (s, ³), 5.66 (s, 1H) 935, 1673, 16
45	mp 177-179 °C 1H NMR (CDCh) & 1.45 (s, 6H), 1.66 (s, 6H), 1.87 (s, 6H), 2.29 (s, 6.23-5.29 (m, 2H), 6.90-6.95 (m, 4H), 7.10-7.15 (m, 2H), 7.19 (s, 2H) IR (KBr) 2929, 1661, 1492, 1405, 1288, 1214, 1030, 869, 829 cm.	mp 224-226 °C 4H NMR (CDC) ₃ 7.20 (dd, J = 2.1, 1R (KBr) 3441, 3	powder 11 NMR (CDCl ₃)	mp 260-262 °C 1H NMR (DMSO) & 2.27 (s, 6H), 3.87 (s, 6H), 7.00 (dd, J = 1.8, 8.1 Hz, 2H), 7 = 8.1 Hz, 2H), 10.73 (s, 2H) 1R (KBr) 3392, 3008, 1719, 1600, 1542, 1413, 1297, 1158, 1032, 905, 627 cm ⁻¹	mp 143-144 °C 14 NMR (CDCl ₃) & 1.76 (s, 3H), 1.82 (s, 3H), 3.61 (s, 3H), 3.67 (s, 3H) 5.50-5.58 (m, 1H), 5.66 (s, 1H), 6.86-7.02 (m, 5H), 7.54 (d, J = 9 Hz, 2H) 1R (KBr) 3494, 2935, 1673, 1609, 1684, 1519, 1479, 1456, 1389, 1284, 13
50	1.199	1.1200 7	1-1201 5	1. 1202 = 1.1202 1.	1-1203 5

Table 238

1.124	mp 90-91 °C. HI NMR (CDCh ₃) & 1.72 (s, 3H), 1.79 (s, 3H), 2.26 (s, 6H), 4.69 (d, J = 7.2 Hz, 2H), 4.9-5.0 (brs, 1H), 5.57 (t, J = 7.2 Hz, 1H), 6.85-7.0 (m, 4H), 7.10 (d, J = 8.7 Hz, 2H), 7.23 (d, J = 8.7 Hz, 2H) HR (KBr) 3253, 3013, 2979, 2928, 1676, 1584, 1521, 1492, 1232, 1034, 950, 848, 825 cm ⁻¹
1-1205	mp 131-132 °C 111 MMR (CDCE) \$\delta\$ 1.73 (s, 311), 1.79 (s, 311), 3.43 (s, 311), 4.68 (d, 4 = 6.9 Hz, 2H), 4.9-5.1 (brs, 1H), 5.58 (t, 4 = 7.2 Hz, 1H), 6.09 (brs, 1H), 6.44 (s, 1H), 6.92 (d, 4 = 8.4 Hz, 2H), 7.0-7.1 (m, 2H), 7.52 (d, 4 = 8.4 Hz, 2H) 111 (KBr) 3428, 2951, 2932, 1671, 1611, 1523, 1491, 1402, 1233, 1111, 1077, 1027, 969, 833 cm ⁻¹
1.1206	
1-1207	mp 108-109 °C 111 NMR (CDCh) 6 1.77 (s, 3H), 1.82 (d, J = 0.6 Hz, 3H), 2.27 (s, 3H), 2.28 (s, 3H), 4.56 (d, J = 6.6 Hz, 2H), 4.89 (s, 1H), 5.54 (m, 1H), 6.86-6.92 (m, 2H), 6.94-7.00 (m, 2H), 7.12 (s, 1H), 7.13 (s, 1H), 7.22-7.27 (m, 2H), 7.27-7.31 (m, 2H) 1R (KBr) 3349, 1608, 1520, 1488, 1439, 1383, 1287, 1263, 1285, 1175, 999, 979 cm ⁻¹
1.1208	mp 194-195 °C 1H NMR (CDCl ₃) δ 2.14 (8, 3H), 2.16 (8, 3H), 3.87 (8, 3H), 4.97 (8, 1H), 5.17 (AB q, J = 12.6 Hz, 2H), 6.74 (dd, J = 2.1, 8.1) 1-1208 Hz, 1H), 6.79 (d, J = 2.1 Hz, 1H), 6.88-6.93 (m, 2H), 6.93 (d, J = 8.1 Hz, 1H), 7.17-7.22 (m, 2H), 7.24 (e, 1H), 7.29-7.49 (m, 5H) 5H) 1R (KBr) 3408, 1611, 1526, 1479, 1463, 1455, 1382, 1263, 1242, 1225, 1212, 1143, 997, 751 cm ⁻¹

Table 239

1-1209	np 183-184 °C HI NMR (CDCL.) & 2.03 (s, 3H), 2.07 (s, 3H), 3.19 (s, 3H), 3.80 (br s, 2H), 5.21 (s, 3H), 6.21 (s, 2H), 6.63 (s, 1H), 6.77 (dd, J = 2.1, 8.1 Hz, 1H), 6.83 (d, J = 2.1 Hz, 1H), 7.02 (d, J = 8.1 Hz, 1H), 7.29-7.52 (m, 9H) IR (KBr) 3481, 3391, 1610, 1611, 1482, 1370, 1240, 1212, 1197, 1173, 1153, 1137, 1024, 1007, 870, 844 cm ⁻¹
1.1210	
1.1211	mp 243-244 °C 1H NMR (1)MSO d6)
1.1212	mp 195-196 °C. 111 NMR (CDCl ₃) & 1.75 (s, 3H), 1.79 (s, 3H), 2.15 (s, 3H), 2.16 (s, 3H), 3.85 (s, 3H), 4.61 (d, J = 6.9 Hz, 2H), 4.97 (s, 1H), 6.55 (m, 1H), 6.76-6.79 (m, 2H), 6.89-6.94 (m, 3H), 7.18-7.23 (m, 2H), 7.24 (s, 1H) 11 (KBr) 3462, 1611, 1519, 1479, 1459, 1431, 1379, 1271, 1240, 1228, 1211, 1137, 983, 835 cm ⁻¹
1.1213	1-1213 IR (KBr) 3275, 1494, 1462, 1444, 1387, 1371, 1232, 1212, 1183, 1141 cm ⁻¹ mp 106-108 °C 1-124 'H NMR (CIDCl ₃) δ 2.24 (s, 3H), 3.79 (s, 3H), 4.72 (br, 1H), 5.20 (s, 2H), 6.72-7.18 (m, 8H), 7.36-7.50 (m, 6H) IR (CHCl ₃) 3596, 1610, 1523, 1493, 1465, 1368, 1318, 1298, 1262, 1173, 1127, 1038, 834 cm ⁻¹

Table 240

•	mp 108-110 C
	111 NM18 (CDCL) δ 1.77 (8, 3H), 1.82 (8, 3H), 2.25 (8, 3H), 3.79 (8, 3H), 4.63-4.65 (4, J = 7.2 Hz, 2H), 5.56 (8, 2H), 6.81 (6, 4)
1.1215	111), 6.87.7.18 (m, 6H), 7.44.7.47 (m, 2H)
	1R (CHCE) 3596, 2937, 1610, 1523, 1493, 1466, 1446, 1387, 1297, 1261, 1173, 1125, 1038, 993, 834 cm ⁻¹
	mp 121.122 ℃
9171	
	IR (CHCh.) 3596, 1612, 1523, 1493, 1464, 1389, 1300, 1259, 1173, 1127, 1038, 886, 834 cm ⁻¹
	mp 163-165 C
1.1217	
	IR (CHCl.) 3597, 3548, 3027, 3010, 1613, 1588, 1522, 1490, 1218, 1208, 1171 cm.1
	foum
	MR (CI
	3.7, 0.7 Hz, 1H), 6.96 (dd, J = 8.4, 2.1 Hz, 1H), 7.03 (d, J = 8.4 Hz, 1H), 7.09 (d, J = 2.1 Hz, 1H), 7.26 (dd, J = 8.6, 0.7 Hz,
1.1218	2H), $7.37.7.45$ (m, 5H), 7.60 (dd, $J = 8.7$, 1.5 Hz, 1H), 7.61 (d, $J = 3.7$ Hz, 1H), 7.78 (d, $J = 1.5$ Hz, 1H), 7.82 (d, $J = 8.6$ Hz,
	1H), 8.05 (d, J = 8.7 Hz, 1H)
	IR (KBr) 3476, 1457, 1371, 1254, 1107, 1131, 1107, 1011, 814, 685, 581 cm ⁻¹
	mp 217-219 C
1.1219	1-1219 6.86 (s, 111), 7.15 (d, $J = 8.4 \text{ Hz}$, 1H), 7.26 (d, $J = 8.7 \text{ Hz}$, 2H), 7.32-7.48 (m, 7H), 7.66 (dd, $J = 8.7$, 1.8 Hz, 1H), 7.61 (d, $J = 1.2 \text{ Hz}$)
	3.8 Hz, 1H), 7.78 (d, $J = 1.8$ Hz, 1H), 7.82 (d, $J = 8.7$ Hz, 1H), 8.05 (d, $J = 8.7$ Hz, 1H)
	IR (KBr) 1366, 1174, 1079, 963, 814, 685, 586 cm ⁻¹

Table 241

	mp 208-210 C
	111 NMR (CDCL ₃) δ 2.37 (8, 311), 2.72 (8, 311), 3.23 (8, 311), 3.47 (8, 311), 3.76 (8, 311), 4.63 (4, $J = 6.6$ Hz, 2H), 5.49 (t, $J = 6.6$
	Hz, HH, 6.71 (d, J = 3.8 Hz, 1H), 6.86 (s, 1H), 7.09 (d, J = 8.4 Hz, 1H), 7.26 (d, J = 8.3 Hz, 2H), 7.35 (dd, J = 8.4, 2.1 Hz, 1H),
1.1220	7.40 (d, J = 2.1 Hz, 1H), 7.56 (dd, J = 8.4, 1.7 Hz, 1H), 7.61 (d, J = 3.8 Hz, 1H), 7.78 (d, J = 1.7 Hz, 1H), 7.82 (d, J = 8.3 Hz,
	2H), 8.05 (d, J = 8.7 Hz, 1H)
	IR(KBr) 1466, 1445, 1365, 1174, 1116, 1079, 964, 812, 686, 584 cm ⁻¹
	mp 203-205 C
	111 NMR (CDCl ₃) & 1.76 (8, 3H), 1.81 (s, 3H), 2.39 (s, 3H), 2.69 (s, 3H), 2.97 (t, J = 8.6 Hz, 2H), 3.23 (s, 3H), 3.50 (s, 3H),
•	3.77 (s, 3H), 3.98 (t, J = 8.6 Hz, 2H), 4.63 (d, J = 6.6 Hz, 2H), 5.49 (t, J = 6.6 Hz, 1H), 6.80 (s, 1H), 7.08 (d, J = 8.5 Hz, 1H),
1.1221	7.24-7.28 (m, 2H), 7.33 (dd, J = 8.5, 2.0 Hz, 1H), 7.37-7.39 (m, 2H), 7.41-7.45 (m, 1H), 7.71 (d, J = 8.4 Hz, 1H), 7.73 (d, J =
	8.1 Hz, 2H)
	IR (KBr) 1474, 1362, 1241, 1166, 1079, 975, 808 cm ⁻¹
	amorphous
	111 NMR (CDCh) 6 1.76 (8, 3H), 1.82 (8, 3H), 2.39 (8, 3H), 2.98 (t, J = 8.4 Hz, 2H), 3.43 (8, 3H), 3.73 (8, 3H), 3.98 (t, J = 8.4
1-1222	Hz, 2H), 4.61 (d, J = 6.6 Hz, 2H), 5.53 (t, J = 6.6 Hz, 1H), 5.68 (e, 1H), 5.86 (e, 1H), 6.40 (e, 1H), 6.93-6.95 (m, 2H), 7.03-7.05
	(m, 1H), 7.23.7.27 (m, 2H), 7.35.7.37 (m, 1H), 7.45.7.50 (m, 1H), 7.71 (d, J = 8.4 Hz, 1H), 7.74 (d, J = 8.4 Hz, 2H)
•	IR (KBr) 3457, 1480, 1354, 1244, 1164, 1099, 978, 817 cm ⁻¹
	mp 199.201 C
	¹ H NMR (CDCl ₃) δ 3.19 (8, 3H), 3.72 (8, 3H), 3.90 (8, 3H), 4.20-4.27 (m, 4H), 5.20 (8, 2H), 6.53 (8, 1H), 6.90-6.99 (m, 3H).
I-1223	I-1223 7.25-7.65 (m, 9H)
	IR (KBr) 3434, 2938, 1604, 1586, 1522, 1484, 1465, 1432, 1368, 1339, 1326, 1249, 1226, 1203, 1174, 1146, 1136, 1106, 1027
Ň	cm.¹

Table 242

1.1224	mp 127-129 °C 111 NMR (CDCh3) δ 1.57 (s, 31l), 1.65 (s, 31l), 1.76 (s, 31l), 1.82 (s, 31l), 3.46 (s, 3H), 3.64 (m, 21l), 3.76 (s, 3H), 4.30 (t, J = 11 NMR (CDCh3) δ 1.57 (s, 11l), 4.62 (d, J = 6.9 Hz, 21l), 5.10 (m, 11l), 5.53 (m, 11l), 5.72 (s, 11l), 5.85 (s, 11l), 6.97 (s, 11l), 6.93 (dd, J = 1.8, 8.4 Hz, 11l), 7.05 (d, J = 1.8 Hz, 11l), 7.88 (Abq, J = 8.7 Hz, 4H) 112, 111, 6.98 (d, J = 8.4 Hz, 11l), 7.05 (d, J = 1.8 Hz, 11l), 7.88 (Abq, J = 8.7 Hz, 4H) 112, 113, 1090, 1068, 1013 cm ⁻¹
1.1225	INR (CDCl ₃) & 3.19 (s, 3H), 3.72 (s, 3H), 4.19-4.23 (m, 4H), 5.18 (s, 2H), 6.52 (s, 1H), 7.03-7.64 (m, 12H) 1.1225 ¹ H NMR (CDCl ₃) & 3.19 (s, 3H), 3.72 (s, 3H), 4.19-4.23 (m, 4H), 5.18 (s, 2H), 6.52 (s, 1H), 7.03-7.64 (m, 12H) 1.1225 ¹ H (KBr) 3433, 2933, 1523, 1483, 1463, 1435, 1377, 1369, 1269, 1227, 1172, 1149, 1126, 1096 cm ⁻¹
1.1226	mp 188-190 °C 11 NMR (DMSO) & 1.72 (s, 3H), 1.75 (s, 3H), 3.33 (s, 3H), 3.67 (s, 3H), 4.55 (d, J = 6.9 Hz, 2H), 5.49 (m, 1H), 6.50 (s, 1H), 6.66 (dd, J = 2.1, 8.1 Hz, 1H), 6.74 (d, J = 2.1 Hz, 1H), 6.91 (d, J = 8.1 Hz, 1H), 7.42 (bs, 2H), 7.85 (ABq, J = 8.4 Hz, 4H), 8.75 (hs, 21) 11 (KBr) 3465, 2937, 1588, 1517, 1500, 1483, 1470, 1446, 1415, 1385, 1340, 1308, 1283, 1246, 1224, 1201, 1186, 1168, 1130, 1116, 1091, 1067, 1011 cm ⁻¹
1.1227	

Table 243

55

50	45 .	40	35	30	25	20	15	10
-1228	mp 169-175 °C 111 NMR (CDCl ₃) \$\hat{\beta}\$ -0.07-0.02 (m, 2H), 0.34-0.42 (m, 2H), 0.98 (m, 1H), 2.44 (s, 3H), 3.20 (s, 3H), 3.47 (d, J = 7.2 Hz, 2H), 1228 3.78 (s, 3H), 3.91 (s, 3H), 5.22 (s, 2H), 6.85 (s, 1H), 6.91 (dd, J = 1.8, 8.1 Hz, 1H), 6.976 (d, J = 1.8 Hz, 1H), 6.979 (d, J = 8.1 Hz, 1H), 6.976 (d, J = 1.8 Hz, 1H), 6.979 (d, J = 8.1 Hz, 1H), 6.978 (d, J = 1.8 Hz, 1H), 6.979 (d, J = 8.1 Hz, 1H), 6.978 (d, J = 1.8 Hz, 1H), 6.979 (d, J = 8.1 Hz, 1H), 6.978 (d, J = 1.8 Hz, 1H), 6.979 (d, J = 8.1 Hz, 1H), 6.978 (d, J = 1.8 Hz, 1H), 6.979 (d, J = 8.1 Hz, 1H), 6.978 (d, J = 1.8 Hz, 1H), 6.978 (d, J = 8.1 Hz, 1H), 6.978 (d, J = 1.8 Hz, 1H), 6.978 (d, J = 8.1 Hz, 1H), 6.978 (d, J = 8.	5 -0.07-0.02 (n , 3H), 5.22 (s, 5	n, 2H), 0.34-0. 2H), 6.85 (s, 1l	42 (m, 2H), 0. H), 6.91 (dd, J	98 (m, 1H), 2.	44 (e, 3H), 3.2 , 1H), 6.976 (d	0 (s, 3H), 3.47 , J = 1.8 Hz, 1	np 169-175 °C HI NMR (CDCl ₃) & -0.07-0.02 (m, 2H), 0.34-0.42 (m, 2H), 0.98 (m, 1H), 2.44 (s, 3H), 3.20 (s, 3H), 3.47 (d, J = 7.2 Hz, 2H), 3.78 (s, 3H), 3.91 (s, 3H), 5.22 (s, 2H), 6.85 (s, 1H), 6.91 (dd, J = 1.8, 8.1 Hz, 1H), 6.976 (d, J = 1.8 Hz, 1H), 6.979 (d, J = 8.1
		7, 2934, 1604, 1518,	1480, 1390, 13	362, 1240, 122	7, 1175, 1140	, 1081 cm.1		
9001		7 1.74 (s, 3H),	1.78 (s, 311), 3	.71 (8, 311), 3.4	87 (s, 3H), 4.2a	0-4.25 (m, 4H)	, 4.62 (d, J = 6	i.3 Hz, 2H), 4.94 (b
1223	1H), 5.57 (m, 1H), 6.55 (s, 1H), 6.89-7.50 (m, 7H) IR (KBr) 3410, 2933, 1611, 1522, 1484, 1462, 1422, 1371, 1264, 1238, 1224, 1173, 1134, 1103 cm ⁻¹	3.55 (s, 1H), 6.8 3, 1611, 1522,	39-7.50 (m, 7H 1484, 1462, 14	l) 122, 1371, 126	4, 1238, 1224	1173, 1134, 1	103 cm ⁻¹	
	mp 149-151 °C IH NMR (CDCl ₃)	5 1.75 (s, 3H),	1.81 (s, 3H), 3	3.45 (s, 3H), 3.	75 (s, 3H), 3.8	17 (e, 3H), 4.61	l (d, J = 6.6 Ha	°C (c), 0 1.75 (s, 3H), 1.81 (s, 3H), 3.45 (s, 3H), 3.75 (s, 3H), 3.87 (s, 3H), 4.61 (d, J = 6.6 Hz, 2H), 5.54-5.58 (m,
1230	1H), 5.69 (s, 1H), 5.91 (s, 1H), 6.46 (s, 1H), 6.93-7.06 (m, 5H), 7.58 (d, J = 8.7 Hz, 2H) (R (KBr) 3501, 2939, 1680, 1609, 1582, 1520, 1487, 1468, 1397, 1284, 1246, 1191, 1	.91 (s, 1H), 6.46 19, 1680, 1609,	6 (s, 1H), 6.93 1582, 1520, 1	-7.06 (m, 5H), 1487, 1458, 13	7.58 (d, J = 8. 197, 1284, 124	,7 Hz, 2H) (6, 1191, 1179)	, 1115, 1067,	1H), 5.91 (s, 1H), 6.46 (s, 1H), 6.93-7.06 (m, 5H), 7.58 (d, J = 8.7 Hz, 2H) 11, 2939, 1680, 1609, 1582, 1520, 1487, 1468, 1397, 1284, 1246, 1191, 1179, 1115, 1067, 1015, 940, 822, 794
	cm. ₁							
	mp 151.152 C							
	H NMR (CDCl3)	31.77 (d, J = 0)	.6 Hz, 3H), 1. ¹	81 (d, $J = 0.6$]	Hz, 3H), 2.04	(a, 3H), 2.08 (a	; 3Н), 3.20 (в,	Cl ₃) 6 1.77 (d, J = 0.6 Hz, 3H), 1.81 (d, J = 0.6 Hz, 3H), 2.04 (e, 3H), 2.08 (e, 3H), 3.20 (e, 3H), 3.77 (br e, 2H),
.1231	3.86 (s, 3H), 4.65 (d, J = 6.6 Hz, 2H), 5.58 (m, 1H), 6.04 (s, 1H), 6.81 (dd, J = 2.1, 8.7 Hz, 1H), 6.81 (d, J = 2.1 Hz, 1H), 7.01	I, J = 6.6 Hz, 2	H), 5.58 (m, 11	H), 6.04 (s, 1H	l), 6.81 (dd, J	= 2.1, 8.7 Hz,	1H), 6.81 (d, 🎝	I = 2.1 Hz, 1H), 7.0
	(d, J = 8.7 Hz, 1H), 7.30-7.36 (m, 2H), 7.38-7.43 (m, 2H)	7.30-7.36 (m, 2	tH), 7.38-7.43	(m, 2H)				
	IR (KBr) 3484, 339	3, 2934, 1608,	1511, 1482, 13	171, 1239, 121	3, 1197, 1173,	1153, 1138, 9	89, 973, 871,	844, 791 cm ⁻¹

Table 244

1.12:32	mp 198-199 °C 4H NMR (DMSO-da) & 1.72 (8, 3H), 1.77 (8, 3H), 1.91 (8, 3H), 1.95 (8, 3H), 3.76 (8, 3H), 4.04 (8, 2H), 4.55 (d, J = 6.9 Hz, 1H) MMR (DMSO-da) & 1.72 (8, 1H), 6.69 (dd, J = 1.8, 8.1 Hz, 1H), 6.75 (d, J = 1.8 Hz, 1H), 6.77-6.83 (m, 2H), 7.05-7.11 (m, 3H), 9.39 (8, 1H) HR (KBr) 3375, 3287, 2913, 1609, 1587, 1578, 1518, 1484, 1434, 1403, 1270, 1235, 1207, 1171, 1136, 1032, 1009, 863, 863, 816, 749 cm ⁻¹
1.1233	mp 198-199 °C: 1H NMR (CDCl ₃)
1-1232	mp 193-194 °C III NMR (CDCL ₃) & 1.77 (a, 3H), 1.80 (d, J = 0.6 Hz, 3H), 1.94 (a, 3H), 2.11 (a, 3H), 2.13 (a, 3H), 3.84 (a, 3H), 4.64 (d, J = 6.6 II NMR (CDCL ₃) & 1.77 (a, 3H), 6.58 (g, 1H), 6.70 6.75 (m, 2H), 6.85 6.93 (m, 2H), 6.96 (d, J = 8.4 Hz, 1H), 7.13 (a, 1H), 7.19-7.24 (m, 2H) 2H) IR (KBr) 3271, 1654, 1611, 1617, 1467, 1448, 1370, 1289, 1262, 1240, 1213, 1177, 1136, 835 cm ⁻¹
1.1235	mp 114-115 °C. 11 NMR (CDCl ₃)

Table 245

50	45	35	30	25	20	15	10	5
	powder							
1236	111 NMR (CDCl3) & 3.22 (8, 3H), 3.38 (8, 3H), 3.46 (8, 3H), 3.92 (8, 3H), 5.22 (8, 2H), 5.76 (8, 1H), 6.97-7.09 (m, 3H), 7.32-	22 (s, 3H), 3.38 (s, 3H)), 3.46 (s, 3H),	3.92 (s, 3H), i	5.22 (s, 2H), 5.	76 (s, 1H), 6.9	77-7.09 (m, 3H),	7.32.
	7.51 (m, 9H) 11.61 (m, 9H)	9961 7661 3471 91	1359 1946 11	1076 101	5 972 881 69º	0 541 594 cr		
	mp 169.172 C	100, 1100, 1001, 1000,	1000, 1000,	10, 1010, 101	2, 212, 221, 23	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
		0 (e. 3H). 3.91 (e. 3H).	3 47 (e. 3H)	3.50 (e. 3H) 3	3 99 (a 3H) 5 9	33 (H 2 H) 6	3.7 04 (m. 3H)	7.31.
237		(s, 511), 5.21 (s, 511)	, 0.47 (8, 011),	0.00 (8, 011),	(8, 311), 0	6. (B, £11), U.i	, , , , , , , , , , , , , , , , , , ,	
	7.49 (m, 9H)							
	IR (KBr) 3009, 2932, 1518, 1469, 1370, 1362, 1250, 1176, 1151, 872, 809, 542, 527 cm ⁻¹	18, 1459, 1370, 1362,	1250, 1176, 11	51, 872, 809,	542, 527 cm ⁻¹			
	mp 182-184 C							
000	¹ H NMR (CDCl ₃) δ 2.67 (8, 3H), 3.21 (8, 3H), 3.48 (8, 3H), 3.50 (8, 3H), 3.93 (8, 3H), 5.77 (8, 1H), 6.98-7.06 (m, 3H), 7.38-	7 (s, 3H), 3.21 (s, 3H)	, 3.48 (s, 3H),	3.50 (s, 3H),	3.93 (a, 3H), 5.7	77 (s, 1H), 6.9	38-7.06 (m, 3H),	7.38-
66.2	7.51 (m, 411)							
	IR (KBr) 3548, 3502, 2938, 1602, 1519, 1389, 1364, 1176, 1159, 1012, 963, 875, 521 cm ⁻¹	38, 1602, 1519, 1389,	1364, 1176, 11	59, 1012, 963	,875, 521 cm ⁻¹			
	mp 132-135 C							
	11 NMR (CDCI.) & 1.77 (e, 3H), 1.80 (s, 3H), 2.62 (e, 3H), 3.21 (e, 3H), 3.48 (e, 3H), 3.51 (e, 3H), 3.90 (e, 3H), 4.64 (d, J	7 (s, 3H), 1.80 (s, 3H)	, 2.62 (в, 3Н), З	3.21 (s, 3H), 3	1.48 (s, 3H), 3.5	ы (в, 3Н), 3.9	0 (s, 3H), 4.64 (c	d, J =
203	6.6 Hz, 2H), 5.51-5.58 (m, 1H), 6.97-7.04 (m, 3H), 7.37-7.51 (m, 4H)	n, 1H), 6.97-7.04 (m, 3	(H), 7.37-7.51 (I	m, 4H)				
	IR (KBr) 2936, 1518, 1464, 1375, 1362, 1246, 1175, 1153, 1013, 968, 872, 805, 529 cm ⁻¹	34, 1375, 1362, 1246,	1175, 1153, 10	13, 968, 872,	805, 529 cm ⁻¹			
	mp 169-172 C							
9	1H NMR (CDCl ₃) δ 1.76 (s, 3H), 1.80 (s, 3H), 3.38 (s, 3H), 3.47 (s, 3H), 3.89 (s, 3H), 4.65 (d, J = 6.6 Hz, 2H), 5.06 (s, 1H),	6 (s, 3H), 1.80 (s, 3H)	, 3.38 (s, 3H), 3	3.47 (s, 3H), 3	1.89 (s, 3H), 4.6	35 (d, J = 6.6	Hz, 2H), 5.06 (s,	1H),
2.5	5.54-5.61 (m, 1H), 5.83 (s, 1H), 6.92-7.00 (m, 3H), 7.05-7.09 (m, 2H), 7.28-7.33 (m, 2H)	3, 1H), 6.92-7.00 (m, 3	(H), 7.05-7.09	m, 2H), 7.28	7.33 (m, 2H)			
	IR (KBr) 3458, 2935, 1611, 1620, 1458, 1392, 1244, 1222, 1016, 828, 803 cm ⁻¹	11, 1520, 1458, 1392,	1244, 1222, 10	15, 828, 803 c	m. ₁			

Table 246

1.1241	mp 170-173 °C III NMR (CDCl ₃) δ 1.73 (в, 3H), 1.79 (s, 3H), 2.55-3.00 (m, 3H), 3.21 (s, 3H), 3.22-3.80 (m, 6H), 4.55-4.63 (m, 2H), 5.41- 5.47 (m, 1H), 6.83 (s, 1H), 7.03-7.70 (m, 8H) 19 (КВ), 29.38, 1686, 1516, 1481, 1378, 1235, 1179, 1152, 1081, 847, 799, 6 75, 527 cm ⁻¹
21-21-1	mp 117-118 °C ¹ H NMR (СРСя) δ 1.77 (в, 3H)1.81 (d, J =0.6 Hz, 3H), 2.11 (в, 3H), 2.19 (в, 3H), 3.38 (в, 3H), 4.64 (d, J =6.9 Hz, 2H), 4.75 (br в, 1H), 5.54-5.90 (m, 1H), 6.86-6.91 (m, 2H), 6.93 (в, 1H), 7.10-7.69 (m, 3H), 7.20-7.25 (m, 2H) ¹ H (СПСы) 3596, 3010, 2934, 1675, 1519, 1473, 1262, 1172, 1098 cm ¹
1.1243	foam 111 NMR (CDCl ₃) & 3.43 (s, 3H), 3.72 (s, 3H), 5.03 (s, 2H), 6.43 (s, 1H), 6.93 (dd, J = 8.4, 2.1 Hz, 1H), 6.94 (d, J = 8.7 Hz, 2H), 7.09 (d, J = 2.1 Hz, 1H), 7.11 (d, J = 8.4 Hz, 1H), 7.29 (ddd, J = 7.8, 4.8, 1.5 Hz, 1H), 7.49 (brd, J = 7.8 Hz, 1H), 7.53 (d, J = 8.7 Hz, 2H), 7.70 (ddd, J = 7.8, 7.8, 1.5 Hz, 1H), 8.61 (brd, J = 4.8 Hz, 1H) 1126 (KBr) 3432, 1611, 1588, 1662, 1523, 1488, 1467, 1226, 1114, 1071, 1015, 939, 824, 778, 758 cm ⁻¹
1.1244	form 111 NMR (CDCl ₃) & 3.45 (s, 3H), 3.75 (s, 3H), 5.01 (s, 2H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.99 (dd, J = 8.4, 2.1 Hz, 1H), 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 111, 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 111, 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 111, 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 111, 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 111, 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 111, 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 111, 7.10 (d, J = 2.1 Hz, 1H), 7.14 (d, J = 8.4 Hz, 1H), 7.30 ~ 7.36 (m, 3H), 7.46 ~ 7.49 (m, 2H), 7.54 (d, J = 8.7 Hz, 2H) 1113, 1070, 1013, 938, 813, 758 cm ⁻¹
1.1245	foam 11 NMR (CDCl3) & 3.45 (e, 3H), 3.75 (e, 3H), 5.01 (e, 2H), 6.45 (e, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.99 (dd, J = 5.1, 3.6 Hz, 1H NMR (CDCl3) & 3.45 (e, 3H), 7.10 (d, J = 2.1 Hz, 1H), 7.11 (d, J = 8.4 Hz, 1H), 7.27 (dd, J = 3.6, 1.0 Hz, 1H), 7.29 (dd, J = 5.1, 1.0 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) = 5.1, 1.0 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) IR (KBr) 3433, 1612, 1589, 1523, 1488, 1403, 1241, 1224, 1192, 1113, 1070, 1011, 826 cm. ¹

Table 247

1.1246	foam 11.1246 6.92 (d, J = 8.7 Hz, 2H), 6.99 (dd, J = 8.4, 2.1 Hz, 11H), 7.05 (d, J = 8.4 Hz, 1H), 7.10 (d, J = 2.1 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H), 11.1246 6.92 (d, J = 8.7 Hz, 2H), 6.99 (dd, J = 8.4, 2.1 Hz, 11H), 7.05 (d, J = 8.4 Hz, 1H), 7.10 (d, J = 2.1 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) 21.13 (R.R.) 3432, 1611, 1590, 1523, 1489, 1403, 1224, 1193, 1113, 1071, 1010, 938, 826 cm ⁻¹
1.1247	form 11 NMR (CDCl ₃) & 3.45 (s, 3H), 3.75 (s, 3H), 5.53 (d, J = 10.5 Hz, 1H), 5.69 (d, J = 16.5 Hz, 1H), 6.11 (ddd, J = 16.5, 10.5, 11.247 6.3 Hz, 1H), 6.44 (d, J = 6.3 Hz, 1H), 6.45 (s, 1H), 6.88 (d, J = 8.4 Hz, 1H), 6.91 ~ 6.93 (m, 2H), 6.92 (d, J = 8.7 Hz, 2H), 7.53 (d, J = 8.7 Hz, 2H) 11 (KBr) 3433, 1611, 1592, 1485, 1403, 1226, 1106, 1059, 814 cm ⁻¹
1.1248	foam 14. NMR (CDCl ₃) & 1.16 (t, J = 7.5 Hz, 3H), 2.26 (tq, J = 2.1, 7.5 Hz, 2H), 3.45 (s, 3H), 3.75 (s, 3H), 4.76 (t, J = 2.1 Hz, 2H), 15. G.45 (s, 1H), 6.91 (d, J = 8.7 Hz, 2H), 6.96 (dd, J = 2.1, 8.4 Hz, 1H), 7.06 (d, J = 8.4 Hz, 1H), 7.07 (d, J = 2.1 Hz, 1H), 7.53 (d. J = 8.7 Hz, 2H) 16. G.45 (s, 1Hz, 2H) 17. G.45 (s, 1Hz, 2H) 18. G.45 (s, 1Hz, 2H) 19. G.45 (s, 1Hz, 2H)
1.1249	
1.1250	1H NMR (CDCl ₃) & 3.38 (s, 3H), 3.67 (s, 3H), 4.66 (tt, J = 2.7, 6.9 Hz, 2H), 4.90 (tt, J = 2.7, 6.9 Hz, 2H), 5.43 (tt, J = 6.9, 6.9 Hz, 1H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.96 (br.s, 2H), 7.07 (s, 1H), 7.53 (d, J = 8.7 Hz, 2H) IR (KBr) 3430, 1955, 1612, 1689, 1622, 1489, 1404, 1248, 1113, 1070, 1008, 938, 845, 825 cm. ¹

Table 248

1.1251	foam 11 NMR (CDCB) & 1.69 (dd, J = 3.3, 6.9 Hz, 3H), 3.46 (s, 3H), 3.74 (s, 3H), 4.63 (dd, J = 2.4, 6.3 Hz, 2H), 5.28 (m, 1H), 5.33 (m, 1H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.95 (d, J = 1.5 Hz, 1H), 6.96 (br.s, 1H), 7.06 (d, J = 1.5 Hz, 1H), 7.52 (d, J = 8.7 Hz, 2H) = 8.7 Hz, 2H)
1-1252	forum 11 NMR (CDCh) 5.102 (t, J = 7.2 Hz, 3H), 2.05 (ddq, J = 3.3, 6.3, 7.2 Hz, 2H), 3.46 (s, 3H), 3.74 (s, 3H), 4.64 (dd, J = 2.4, 11 NMR (CDCh) 5.40 (m, 2H), 6.45 (s, 1H), 6.91 (d, J = 8.7 Hz, 2H), 6.94 (d, J = 2.1, 8.4 Hz, 1H), 6.97 (d, J = 8.4 Hz, 1H), 7.06 (d, J = 2.1 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) 12.1 Hz, 1H), 7.54 (d, J = 8.7 Hz, 2H) 13.1 (KBr) 3.479, 2960, 2933, 1964, 1612, 1522, 1489, 1403, 1242, 1113, 1072, 1011, 999, 944, 872 cm. ¹
1.1253	foatin 1H NMR (CDCl ₃) & 1.03 (d, J = 6.6 Hz, 6H), 2.34 (m, 1H), 3.46 (e, 3H), 3.74 (e, 3H), 4.63 (dd, J = 2.7, 6.3 Hz, 2H), 5.33 (m, 1H), 5.44 (m, 1H), 6.45 (e, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.93 (d, J = 1.8, 7.8 Hz, 1H), 6.97 (d, J = 7.8 Hz, 1H), 7.06 (d, J = 1.8 Hz, 1H), 7.53 (d, J = 8.7 Hz, 2H) 11z, 11l), 7.53 (d, J = 8.7 Hz, 2H) 11R (KBr) 3434, 2958, 1960, 1612, 1589, 1623, 1489, 1226, 1113, 1071, 1011, 939, 826 cm ⁻¹
1.124	Foam 14. NMR (CDCl ₃) & 2.62 (d, J = 2.4 Hz, 1H), 3.45 (s, 3H), 4.18 (dd, J = 7.2, 11.4 Hz, 1H), 4.38 (dd, J = 2.4, 11.4 15. Hz, 1H), 4.94 (ddd, J = 2.4, 2.4, 7.2 Hz, 1H), 6.44 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.98 (d, J = 8.4 Hz, 1H), 7.01 (d, J = 1.8, 1.8, 1.1), 7.08 (d, J = 1.8 Hz, 1H), 7.52 (d, J = 8.7 Hz, 2H) 16. Hz, 1H), 7.08 (d, J = 1.8 Hz, 1H), 7.52 (d, J = 8.7 Hz, 2H) 17. Hz, 1H, 7.08 (d, J = 1.8 Hz, 1H), 7.52 (d, J = 8.7 Hz, 2H) 18. Hz, 1H, 7.08 (d, J = 1.8 Hz, 1H), 7.52 (d, J = 8.7 Hz, 2H)

Table 251

50	45	40	35	30	25	20	15	10	5
1.1265	mp85-86 111 NMR 8.4 Hz, 11 1R(KBr) 3	(d, J = 8.4 Hz, 1740, 1608	(I), 3.32 (s, 3H) , 1H), 7.48-7.67 8, 1517, 1483, 1	, 3.82 (s, 3H), (m, 7H), 8.46	3.96 (s, 3H), (brs, 1H)	6.38 (s, 211), 7.	.04 (s, 1H), 7.	т. (СЮСы) в 2.85 (в, 311), 3.32 (в, 311), 3.82 (в, 311), 3.96 (в, 311), 5.38 (в, 211), 7.04 (в, 111), 7.22 (в, 114), 7.25 (d, J = 1), 7.35 (d, J = 8.4 Hz, 114), 7.48-7.67 (m, 714), 8.45 (brs, 114) (brs, 114) (brs, 114) (brs, 114), 1080, 832, 810, 698 ст. 1	(d, J =
1.1266	mp79-80 °C ¹ HI NMR (CDCh ₃) & 2.14 (s, 3H), 3.50 (s, 3H), 4.95 (brs, 1H), 5.22 (s, 2H), 5.88 (brs, 1H), 6.81 2H), 7.02-7.14 (m, 3H), 7.37-7.56 (m, 7H) IR(KBr) 3409, 2933, 1612, 1522, 1488, 1454, 1400, 1266, 1229, 1199, 1162, 1007, 834, 696 cm ⁻¹	, 3H), 7.37-7.5	II), 3.50 (s, 3H) 56 (m, 7H) 2, 1488, 1454, 1	, 4.95 (brs, 11 , 400, 1266, 12	I), 5.22 (s, 2l	l), 5.88 (brs, 11 2, 1007, 834, 6	H), 6.81 (s, 1H	C (CDCh ₃)	3.1 Hz,
1.1267	mp87-88 °C 14 NMR (CDCla)	δ 2.13 (s, 3l z, 2H) 31, 1612, 1522	II), 2.59 (s, 3H) 2, 1488, 1454, 1	, 3.20 (s, 3H),	3.55 (s, 3H), 30, 1163, 100	5.22 (s, 2H), 6.	.99-7.17 (m, 5	°C (CDCL ₃)	n, 6H),
1.1268	mp76-77 °C 111 NMR (CDCI ₃) δ 1.72 (s, 3H), 1.77 (s, 6H), 1.81 (s, 3H), 2.69 (s, 3H), 3.24 (s, 3H), 3.61 (s, 3H), 3.79 (s, 3H), 4.12-4.20 (m, 1H), 4.56-4.61 (m, 1H), 4.64 (d, J = 6.6 Hz, 2H), 5.25 (t, J = 7.5 Hz, 1H), 5.50 (t, J = 6.4 Hz, 1H), 6.85 (s, 1H), 7.05-7.11 (m, 2H), 7.34-7.40 (m, 3H) 1R(KBr) 3423, 2939, 1707, 1521, 1484, 1367, 1241, 1178, 1079, 1034, 972, 799, 521 cm ⁻¹	δ 1.72 (s, 31 , 1H), 4.64 (d, , 3H) 39, 1707, 1521	I), 1.77 (s, 6H), J = 6.6 Hz, 2H I, 1484, 1367, 1	1.81 (e, 3H), 3), 5.25 (t, J = 241, 1178, 10	2.69 (s, 3H), 3 7.5 Hz, 1H), (79, 1034, 972	.24 (s, 3H), 3.6 5.50 (t, J = 6.4 799, 521 cm. ¹	1 (8, 3H), 3.79 Hz, 1H), 6.85	°C (CDCU) 5 1.72 (s, 3H), 1.77 (s, 6H), 1.81 (s, 3H), 2.69 (s, 3H), 3.24 (s, 3H), 3.61 (s, 3H), 3.79 (s, 3H), 4.12-4.20 (m, 4.61 (m, 1H), 4.64 (d, J = 6.6 Hz, 2H), 5.25 (t, J = 7.5 Hz, 1H), 5.50 (t, J = 6.4 Hz, 1H), 6.85 (s, 1H), 7.05-7.11 (m, 7.40 (m, 3H)) 4.33, 2939, 1707, 1521, 1484, 1367, 1241, 1178, 1079, 1034, 972, 799, 521 cm ⁻¹	20 (m, 11 (m,
1.1269	mp73-74 °C 'II (CIDCh) & 2.17 (s, 3H), 2.28 (s, 3H), 5.16 (s, 2H), 5.71 (brs, 1H), 6.83 (d, (s, 1H), 7.15 (s, 1H), 7.32-7.33 (m, 2H), 7.36-7.45 (m, 5H), 7.60 (d, J = 10.5 Hz, 1H), IR(KBr) 3410, 2923, 1718, 1606, 1540, 1521, 1489, 1424, 1282, 1179, 976, 728 cm ⁻¹	δ 2.17 (s, 3l H), 7.32-7.33 (23, 1718, 1606	CHCha) & 2.17 (s, 311), 2.28 (s, 311), 5.16 (s, 211), 5.71 (brs, 111), 6.83 (d, J = 8.1 Hz, 11, 15 (s, 1H), 7.32-7.33 (m, 2H), 7.36-7.45 (m, 5H), 7.60 (d, J = 10.5 Hz, 1H), 8.05 (brs, 1H), 410, 2923, 1718, 1606, 1540, 1521, 1489, 1424, 1282, 1179, 976, 728 cm ⁻¹	, 6.16 (s, 211), 45 (m, 5H), 7. 489, 1424, 12	6.71 (brs, 111 60 (d, J = 10.6 82, 1179, 976), 6.83 (d, J = 8 5 Hz, 1H), 8.05 728 cm ⁻¹	3.1 Hz, 111), 6 (brs, 1H)	COCCE, 3 2.17 (s, 311), 2.28 (s, 311), 5.16 (s, 211), 5.71 (brs, 111), 6.83 (d, J = 8.1 Hz, 111), 6.97-7.00 (m, 211), 7.08 (s, 114), 7.32-7.33 (m, 211), 7.36-7.45 (m, 511), 7.60 (d, J = 10.5 Hz, 111), 8.05 (brs, 111) 410, 2923, 1718, 1606, 1540, 1521, 1489, 1424, 1282, 1179, 976, 728 cm ⁻¹), 7.08

Table 252

· 35

1.1270	mp65-67 °C 'II NMR (CDCE) & 1.77 (s, 3H), 1.81 (s, 3H), 2.14 (s, 3H), 2.72 (s, 3H), 3.20 (s, 3H), 3.56 (s, 3H), 4.64 (d, J = 6.9 Hz, 2H), 11 NMR (CDCE) & 1.77 (s, 3H), 7.18 (s, 1H), 7.37 (d, J = 8.7 Hz, 2H), 7.67 (d, J = 8.7 Hz, 2H), 7.67 (d, J = 8.7 Hz, 2H), 7.67 (d, J = 9.9 Hz, 2H), 7.01-7.11 (m, 3H), 7.18 (s, 1H), 7.37 (d, J = 8.7 Hz, 2H), 7.67 (d, J
1.1271	mp99-100 °C III NMR (CDCL) 6 1.76 (s, 6H), 1.79 (s, 3H), 1.81 (s, 3H), 3.52 (s, 3H), 3.72 (s, 3H), 4.61 (d, J = 7.2 Hz, 2H), 5.36 (t, J = 6.6 III NMR (CDCL) 6 1.76 (s, 6H), 1.79 (s, 3H), 1.81 (s, 1H), 6.43 (s, 1H), 6.46-6.52 (m, 1H), 6.95 (s, 2H), 7.05 (s, 1H), 7.10-7.16 (m, 1H) 7.10-7.16 (m, 1H) IR(KBr) 3496, 3407, 2933, 1638, 1635, 1493, 1098, 1000 cm ⁻¹
1-1272	mp75.76 °C ¹ H NMR (CDCl ₃) δ 2.17 (8, 3H), 2.28 (8, 3H), 3.12 (8, 3H), 5.18 (8, 2H), 7.09-7.14 (m, 4H), 7.26-7.47 (m, 8H), 7.61 (d, J = 11.4 Hz, 1H), 8.00 (brs, 1H) ¹ II.4 Hz, 1H), 8.00 (brs, 1H) ¹ II.4 Hz, 1H), 8.00 (brs, 1H)
1.1273	
1.1274	oil 'H NMR (CDCl ₃) & 1.73 (s, 3H), 1.76 (s, 3H), 1.77 (s, 3H), 1.79 (s, 3H), 2.22 (s, 3H), 2.27 (s, 3H), 3.73 (d, J = 6.0 Hz, 2H), 1.1274 3.88 (s, 3H), 4.63 (d, J = 6.6 Hz, 2H), 5.36 (t, J = 6.0 Hz, 1H), 5.57 (t, J = 6.6 Hz, 1H), 6.40-6.51 (m, 2H), 6.87-6.95 (m, 3H), 7.05-7.14 (m, 3H) IR(CHCl ₃) 3021, 2934, 1628, 1523, 1492, 1235, 1219, 1139 cm ⁻¹

Table 253

55

Table 254

	mp 88-90 ℃
1.1280	1.1280 6.7 Hz, 111), 6.83 (s, 111), 6.90 (d, J = 8.7 Hz, 2H), 7.01 (t, J = 8.6 Hz, 1H), 7.18 (s, 1H), 7.24-7.28 (m, 3H), 7.36 (dd, J = 12.9,
	2.1 Hz, 1H)
	IR (KBr) 3400, 1523, 1493, 1263, 1217, 1128, 977, 836 cm 1
	mp 168-169 C
	111 NMR (CDCl.) 6 1.76 (8, 311), 1.80 (d, J = 0.3 Hz, 3H), 2.10 (8, 3H), 2.34 (8, 3H), 2.50 (8, 3H), 3.87 (8, 3H), 4.63 (d, J = 6.9
1-1281	1-1281 Hz, 211), 5.14 (s, 1H), 5.55 (m, 1H), 6.88 (s, 1H), 6.77-6.82 (m, 2H), 6.85-6.91 (m, 2H), 6.98 (d, J = 8.1 Hz, 1H), 7.13 (s, 1H),
	7.18-7.24 (m, 2H)
	IR (KBr) 3465, 1610, 1516, 1473, 1382, 1322, 1307, 1266, 1240, 1213, 1179, 1168, 1147, 1100, 982, 836 cm ⁻¹
	mp 85-86 ℃
	1H NMR (CDCl ₃) δ 0.99 (d, J = 6.2 Hz, 6H), 1.71-1.98 (m, 3H), 2.27 (s, 3H), 2.29 (s, 3H), 3.20 (s, 3H), 3.88 (s, 3H), 4.10 (t, J
1.1282	= 6.8 Hz, 211), 6.88 (dd, J = 2.0, 8.6 Hz, 111), 6.88 (d, J = 2.0 Hz, 1H), 6.95 (d, J = 8.6 Hz, 1H), 7.30-7.46 (m, 4H)
	IR (KBr) 1519, 1488, 1375, 1255, 1243, 1214, 1204, 1173, 1154, 1134, 867, 860, 792 cm. ¹
	_
	¹ H NMR (CDCl ₃) δ 0.99 (d, J = 6.3 Hz, 6H), 1.75-1.94 (m, 3H), 2.27 (s, 3H), 2.28 (s, 3H), 3.88 (s, 3H), 4.10 (t, J = 6.6 Hz,
1.1283	211), 4.91 (s, 111), 6.86-6.91 (m, 4H), 6.94 (d, J = 8.7 Hz, 1H), 7.12 (s, 1H), 7.15 (s, 1H), 7.22-7.27 (m, 2H)
	IR (KBr) 3438, 1611, 1522, 1490, 1475, 1464, 1446, 1256, 1242, 1212, 1180, 1171, 1137, 1032, 834, 818 cm ⁻¹
	mp 156-157 C
·	1H NMR (CDC1 ₃) δ 3.46 (g, 3H), 3.76 (g, 3H), 3.89 (g, 3H), 4.78 (d, J = 6.3 Hz, 2H), 4.99 (g, 1H), 5.96 (g, 1H), 6.25 (t, J = 6.3
I.1284	
	7.51.7.57 (m, 2H)
	IR (KBr) 3455, 1612, 1622, 1487, 1456, 1396, 1269, 1234, 1223, 1209, 1173, 1140, 1115, 1024, 885, 825, 813 cm

Table 255

	2, 58-18 dm
1-1285	6.92 (m, 2H), 6.97-7.14 (m, 5H), 7.22-7.27 (m, 2H) $(m, 3H)$, 2.27 (s, 6H), 4.11 (t, $J = 6.9$ Hz, 2H), 4.80 (br s, 1H), 6.86-6.92 (m, 2H), 6.97-7.14 (m, 5H), 7.22-7.27 (m, 2H)
	IR (KBr) 3389, 1523, 1491, 1476, 1427, 1301, 1276, 1233, 1196, 1168, 1126, 836, 815 cm-1
	mp 152-153 C
2001	111 NMR (CDCl ₃) & 1.76 (s, 311), 1.80 (d, J = 0.6 Hz, 311), 2.12 (s, 311), 2.20 (s, 3H), 3.39 (s, 311), 3.87 (s, 3H), 4.64 (d, J = 6.3)
007	Hz, 2H), 4.79 (br s, 1H), 5.66-5.61 (m, 1H), 6.82-6.97 (m, 6H), 7.21-7.26 (m, 2H)
	IR (CHCl3) 3596, 3440, 3011, 2935, 1676, 1612, 1588, 1518, 1473, 1449, 1259, 1238, 1173 cm ⁻¹
	mp 123-125 C
1-1287	¹ H NMR (CDCl ₃) δ -0.01-0.08 (m, 2H), 0.44-0.50 (m, 2H), 1.01 (m, 1H), 3.21 (s, 3H), 3.34 (d, J = 7.5 Hz, 2H), 3.75 (s, 3H),
	3.91 (s, 3H), 5.21 (s, 2H), 6.08 (s, 1H), 6.45 (s, 1H), 6.97.7.04 (m. 3H), 7.26-7.72 (m, 9H)
	mp 177-178 ℃
	¹ H NMR (CDCl ₃) δ 0.27 (t, J = 4.8 Hz, 1H), 0.60 (dd, J = 4.8, 8.7 Hz, 1H), 1.13 (s, 3H), 1.17 (s, 3H), 1.13-1.22 (m, 1H), 3.46
1.1988	(8, 3H), 3.76 (8, 3H), 3.80 (8, 3H), 4.00 (dd, $J = 7.8$, 10.5 Hz, 1H), 4.12 (dd, $J = 6.6$, 10.5 Hz, 1H), 4.95 (bs, 1H), 5.91 (8, 1H),
	6.46 (s, 1H), 6.91-7.02 (m, 5H), 7.52-7.56 (m, 2H)
	IR (KBr) 3479, 3434, 3389, 2940, 1614, 1589, 1523, 1490, 1466, 1395, 1361, 1319, 1271, 1238, 1218, 1174, 1137, 1117,
	1072, 1011 cm ⁻¹
	mp 163-166 ℃
1.1980	¹ H NMR (CDCl ₃) δ 1.76 (8, 3H), 1.80 (8, 3H), 2.25 (8, 3H), 3.80 (8, 3H), 3.89 (8, 3H), 4.63-4.65 (d, J = 6.6 Hz, 2H), 4.80 (br,
	1H), 5.57 (m, 1H), 6.86-6.97 (m, 6H), 7.18 (s, 1H), 7.45-7.48 (m, 2H)
	IR (CHCl ₃) 3596, 1609, 1523, 1493, 1464, 1387, 1256, 1173, 1138, 1042, 1032, 997, 834 cm ⁻¹

Table 256

	mp 150-152 C
	111 NMR (CDCh) δ 2.25 (s, 311), 3.80 (s, 311), 3.90 (s, 311), 4.74-4.80 (m, 311), 6.26 (t, J = 6.0 Hz, 1H), 6.85-6.92 (m, 6H),
0621-1	7.19 (s, 111), 7.45-7.48 (m, 2H)
	IR (CHCh) 3596, 2958, 2938, 1609, 1523, 1493, 1464, 1389, 1328, 1257, 1173, 1140, 1102, 1030, 886, 854, 834 cm ⁻¹
	mp 117-118 C
	111 NMR (CDCL ₃) & 1.76 (s, 311), 1.79 (s, 311), 2.28 (s, 3H), 2.31 (s, 3H), 3.01 (s, 6H), 3.88 (s, 3H), 4.63 (d, J = 6.6Hz, 2H),
1.1291	5.53 · 5.60 (m, 1H), 6.76 · 6.96 (m, 5H), 7.15 (s, 2H), 7.28 (d, J = 8.7 Hz, 2H)
	IR (KBr) 1611, 1529, 1490, 1447, 1359, 1322, 1239, 1214, 1193, 1135, 1038,cm ⁻¹
	mp 116-118 C
	111 NMR (CDCl ₃) 2.24 (8, 3H), 3.81 (8, 3H), 4.77 (d, J = 6.3 Hz, 2H), 4.90 (br s, 1H), 6.23 (t, J = 6.3 Hz, 1H), 6.83 (s, 1H), 6.90
1.1292	1-1292 (d, J = 8.7 Hz, 2H), 6.99 (t, J = 8.6 Hz, 1H), 7.17 (s, 1H), 7.25 (d, J = 8.7 Hz, 2H), 7.27 (ddd, J = 8.6, 2.1, 1.2 Hz, 1H), 7.37
	(dd, J = 12.6, 2.1 Hz, 1H)
	1R (KBr) 3696, 1731, 1613, 1523, 1493, 1259, 1130, 1033, 886 cm ⁻¹
	mp 151-154 °C
0	1H NMR (CDCl ₃) δ 2.23 (8, 3H), 3.21 (8, 3H), 3.80 (8, 3H), 3.93 (8, 3H), 5.20 (8, 2H), 6.81 (8, 1H), 6.95 (d, J = 8.4 Hz, 1H),
1-1293	7.05 (dd, J = 8.4, 2.1 Hz, 1H), 7.15 (d, J = 2.1 Hz, 1H), 7.21 (s, 1H), 7.30-7.60 (m, 9H)
	IR (KBr) 1490, 1361, 1243, 1148, 1032, 876 cm ⁻¹
	mp 119.121°C
	1H NMR (CDCl ₃) δ 1.76 (a, 3H), 1.79 (a, 3H), 2.24 (a, 3H), 3.21 (a, 3H), 3.80 (a, 3H), 3.91 (a, 3H), 4.63 (d, J = 6.5 Hz, 2H),
I.1294	1.1294 5.56 (t, J = 6.5 Hz, 1H), 6.82 (s, 1H), 6.94 (d, J = 8.4 Hz, 1H), 7.10 (dd, J = 8.4, 1.5 Hz, 1H), 7.13 (d, J = 1.5 Hz, 1H), 7.23 (s,
	111), 7.36 (d, $J = 8.3$ Hz, $2H$), 7.43 (d, $J = 8.3$ Hz, $2H$)
	IR (KBr) 1519, 1490, 1364, 1156, 1031, 971, 858 cm ⁻¹

Table 257

50	45	40	35	30	25	20	15	10	5
I-1295	mp 135-13 111 NMR (5.56 (t, J) = J = 2.1 Hz	37 °C (CDC!s)	D, 1.78 (s, 3H) 1H), 6.90 (d, J) 26 (d, J = 8.7 H)	J. 2.25 (8, 3H) I = 8.7 Hz, 2H Iz, 2H)), 3.80 (s, 3H), (), 6.94 (d, J = 134 cm ⁻¹	3.90 (s, 3H), 4	1.63 (d, J = 6.7	7 Hz, 2H), 4.96	5 (s, 1H),
1.1296	mp 140-14 111 NMR (6 (8, 1H), 5.5 11R (KBr) 3	11 °C (2DCl3) & 1.46 (t, J = 6.9 Hz, 3H), 3.46 (s, 3H), 3.75 (s, 3H), 4.13 (q, J = 6.9 Hz, 2H), 4.77 (d, J = 6.0 Hz) (15 (s, 1H), 6.25 (t, J = 6.0 Hz, 1H), 6.47 (s, 1H), 6.90-6.97 (m, 3H), 7.01-7.06 (m, 2H), 7.50-7.57 (m, 2H) (163, 3433, 1613, 1521, 1491, 1259, 1400, 1267, 1235, 1204, 1167, 1136, 1112, 1097, 1076, 1019, 993	6.9 Hz, 3H), 5 6.0 Hz, 1H), 6 1, 1491, 1259,	3.46 (8, 3H), 3 .47 (s, 1H), 6. 1400, 1267,	.75 (s, 3H), 4.1 90-6.97 (m, 3F	3 (q, J = 6.9 I 1), 7.01-7.06 (167, 1136, 11	Iz, 2H), 4.77 (m, 2H), 7.50-7	d, J = 6.0 Hz, 2 .67 (m, 2H) 5, 1019, 993, 8	H), 5.06 82, 824,
I-1297		.da) & 2.21 (s. m, 2H), 7.20-7. 544, 1690, 1522	, 3H), 2.22 (s, 27 (m, 1H)	3H), 2.87 (s,	3H), 3.02 (s, 3	H), 4.96 (s, 2	Н), 6.80-6.86	(m, 2H), 7.05-	7.11 (m,
1.1298	mp 155-158 \(\mathcal{L}\) 14 NMR (CDCl ₃) \(\delta\) 3.21 (8, 3H), 3.45 (8, 3H), 3.75 (8, 3H), 4.42 (8, 4H), 5.93 (8, 1H), 6.44 (8, 1H), 6.90-6.96 (m, 1H), 7.06-7.11 (m, 1H), 7.19-7.39 (m, 13H), 7.67-7.72 (m, 2H) 18 (KBr) 3445, 2940, 1615, 1621, 1483, 1367, 1149, 875, 707, 546, 526 cm ⁻¹	8 U CDCl ₃)	l), 3.45 (s, 3H) , 7.67-7.72 (m,	, 3.75 (s, 3H), , 2H)	, 4.42 (s, 4H), t	5.93 (a, 1H), (3.44 (s, 1H), 6.	.90-6.96 (m, 1F	I), 7.06-
1.1299	mp 174-175 °C ¹ H NMR (CDCl ₃)	5 °C CDCl ₃)), 3.20 (s, 3H),	, 3.53 (s, 3H),	3.78 (s, 3H), 4	1.40 (s, 4H); 6	.82 (s, 1H), 6.	91-7.01 (m, 2H	1), 7.11-

Table 258

·50

	mp 218·221 C
900	111 NMR (CDCl3) & 2.69 (8, 311), 3.21 (8, 311), 3.55 (8, 311), 3.77 (8, 311), 6.83 (8, 111), 6.86-6.93 (m, 111), 7.02-7.15 (m, 211),
1.1300	7.35-7.41 (m, 2H), 7.66-7.71 (m, 2H)
	IR (KBr) 3435, 3389, 2940, 1635, 1525, 1362, 1175, 1152, 1076, 962, 874, 802, 527 cm ⁻¹
	mp 209-211 ℃ ՝
	111 NMR (CDCh) 6 2.91 (8, 3H), 3.22 (8, 3H), 3.54 (8, 3H), 3.78 (8, 3H), 6.86 (8, 1H), 7.26-7.33 (m, 2H), 7.37-7.42 (m, 2H),
	7.64-7.71 (m, 211), 8.15 (s, 111), 8.34-8.41 (m, 111)
	IR (KBr) 3336, 2943, 1736, 1539, 1480, 1356, 1174, 1151, 1077, 881, 799, 523, 507 cm ⁻¹
	powder
90001	111 NMR (CDCl ₃) δ 1.50 (8, 3H), 1.71 (8, 3H), 2.78 (8, 3H), 3.23 (8, 3H), 3.55 (8, 3H), 3.78 (8, 3H), 4.11-4.20 (m, 1H), 4.54-
1-1302	4.63 (m, 1H), 5.20-5.28 (m, 1H), 6.87 (s, 1H), 7.25-7.31 (m, 3H), 7.37-7.42 (m, 2H), 7.66-7.72 (m, 2H)
	IR (KBr) 2941, 1702, 1482, 1369, 1203, 1176, 1152, 1080, 964, 873, 797, 525 cm ⁻¹
	mp 133-136 C
0001	111 NMR (CUCl ₃) δ 1.73 (s, 3H), 1.77 (s, 3H), 3.45 (s, 3H), 3.74-3.78 (m, 5H), 4.96 (s, 1H), 5.34-5.42 (m, 1H), 5.94 (s, 1H),
1.1303	6.45 (s, 111), 6.75-6.81 (m, 1H), 6.89-6.95 (m, 2H), 7.10-7.18 (m, 2H), 7.51-7.56 (m, 2H)
	IR (KBr) 3401, 2935, 1626, 1614, 1627, 1490, 1402, 1267, 1223, 1113, 1071, 1005, 829, 589 cm ⁻¹
	mp 170-171 °C
	1H NMR (CDCl ₃) & 2.11 (s, 3H), 3.47 (s, 3H), 4.40 (s, 4H), 4.91 (s, 1H), 5.81 (s, 1H), 6.77 (s, 1H), 6.86-7.08 (m, 5H), 7.22.
1-1304	7.33 (m, 10H), 7.48-7.53 (m, 2H)
	IR (KBr) 3483, 3029, 1612, 1523, 1489, 1453, 1400, 1265, 1215, 834, 749, 698, 494, 526 cm ⁻¹

Table 259

1-1:305	mp 166-168 °C 111 NMR (CDCl ₃) \$\sigma 2.15 (s, 311), 2.17 (s, 311), 3.19 (s, 311), 4.21-4.59 (m, 4H), 6.84-7.05 (m, 3H), 7.14-7.15 (m, 1H), 7.20- 7.38 (m, 12H), 7.63-7.69 (m, 2H) 11R (KBr) 3028, 2938, 1519, 1476, 1454, 1363, 1174, 1151, 969, 873, 801, 700, 525 cm ⁻¹
1.1306	mp 210-212 °C 111 NMR (CDCl ₃)
I-1307	mp 171-173 °C 14 NMR (CDCl ₃)
1.1308	powder 'H NMR (CDCi ₃)
1.1309	mp 139·141 °C ¹ H NMR (CDCl ₃) ° 1.74 (s, 3H), 1.78 (s, 3H), 2.13 (s, 3H), 3.48 (s, 3H), 3.77 (d, J = 6.6 Hz, 2H), 4.70·5.20 (br s, 1H), 5.35- ^{5.42} (m, 1H), 5.77 (s, 1H), 6.77·6.83 (m, 2H), 6.88·6.99 (m, 4H), 7.48·7.54 (m, 2H) ¹ R (KBr) 3525, 3377, 2931, 1625, 1626, 1488, 1222, 1164, 1011, 833 cm ⁻¹
	trop fine a large form for the first fine fine fine fine fine fine fine fine

Table 260

	mp 177.179 ℃
	111 NMR (CDCLa) & 1.76 (8, 311), 1.81 (8, 311), 3.20 (t, J = 8.4 Hz, 211), 3.21 (t, J = 8.4 Hz, 211), 4.521 (d, J = 7.2 Hz, 2H),
0181-1	1.1310 4.523 (t, J = 8.4 Hz, 2H), 4.90 (brs, 1H), 5.53 (t, J = 6.8 Hz, 1H), 6.71 (s, 1H), 6.89 (d, J = 8.4 Hz, 2H), 6.98 (d, J = 8.7 Hz,
	2H), 7.41 (d, J = 8.7 Hz, 2H), 7.45 (d, J = 9.0 Hz, 2H)
	IR (KBr) 3389, 2971, 2911, 1611, 1525, 1394, 1238, 1175, 997, 828 cm ⁻¹
	mp 175-177 ℃
	111 NMR (CDCl3) 6 3.20 (t, J = 8.3 Hz, 4H), 4.53 (t, J = 8.4 Hz, 4H), 4.70 (d, J = 6.3 Hz, 2H), 4.88 (brs, 1H), 6.19 (t, J = 6.2
1.1311	Hz, 1H), 6.89 (d, J = 8.7 Hz, 2H), 6.96 (d, J = 9.0 Hz, 2H), 7.41 (d, J = 9.0 Hz, 2H), 7.47 (d, J = 8.7 Hz, 2H)
	IR (KBr) 3409, 3269, 2934, 2901, 1524, 1480, 1395, 1235, 1223, 1003, 881, 817 cm ⁻¹
	mp 186-187 ℃
	1H NMR (CDCl.) 6 2.06 (8, 3H), 2.16 (8, 3H), 4.72 (8, 1H), 4.80 (d, J=6.3 Hz, 2H), 4.83 (8, 1H), 6.25 (t, J=6.3 Hz, 1H), 6.76
1.1312	(s, 111), 6.86-6.92 (m, 211), 7.03-7.13 (m, 3H), 7.21-7.26 (m, 2H)
	IR (CHCl ₃) 3689, 3598, 3551, 3024, 3008, 1732, 1614, 1520, 1487, 1260, 1223 cm· ¹
	mp 201 °C
(1H NMR (CDC13) 6 2.08 (9, 3H), 2.17 (8, 3H), 3.88 (8, 3H), 4.80 (d, J=6.3 Hz, 2H), 4.90 (br s, 1H), 4.99 (s, 1H), 6.26 (t, J
1.1313	=6.3 Hz, 1H), 6.77 (s, 1H), 6.85-6.92 (m, 4H), 7.01 (d, J =6.9 Hz, 1H), 7.22-7.27 (m, 2H)
	IR (CHCl ₃) 3688, 3598, 3538, 3024, 3014, 2938, 1731, 1631, 1520, 1488, 1240, 1172 cm ⁻¹
	mp 132-134 C
1-1314	
	IR (KBr) 3600.2800(br), 1610, 1523, 1483, 1443, 1325, 1297 cm ⁻¹

Table 261

55

50	45	40	35	30	25	20	15	10	5
1.1315	mp 123-125 °C 111 NMR (CDCh) & 2.13 (s, 3H), 2.29 (m, 4H), 3.00 (s, 6H), 3.98 (br, 5 7.02 (s, 1H), 7.09-7.13 (m, 2H), 7.25-7.32 (m, 2H) 1R (KBr) 3600-2800(br), 1609, 1625, 1488, 1443, 1356, 1232, 1194 cm ⁻¹	δ 2.13 (s, 3) 7.13 (m, 2H), '	H), 2.29 (m, 4] 7.25-7.32 (m, 5	2.13 (s, 3H), 2.29 (m, 4H), 3.00 (s, 6H), 3.98 (br, 3H), 6.63 (dd, J = 2.4, 8.1 Hz, 1H), 6.77-6.81 (m, 3H), (m, 2H), 7.25-7.32 (m, 2H)), 3.98 (br, 3H), 6.63 (dd, J =	= 2.4, 8.1 Hz,	IH), 6.77-6.81	(m, 3H),
1.1316		7 °C (10.6) \$ 2.10 (8, 3H), 2.31 (8, 3H), 3.01 (8, 6H), 6.77-6.84 = 3.0 , 12.9 Hz, 1H), 7.09 (d, J = 3.0 Hz, 1H), 7.95 (br s, 1H) (100-2800(br), 1707, 16H1, 1528, 1484, 1350, 1279, 1229, 119	H), 2.31 (s, 31) 7.09 (d, J = 3.0	2.10 (s, 3H), 2.31 (s, 3H), 3.01 (s, 6H), 6.77-6.84 (m, 2H), 7.00 (s, 1H), 7.15 (s, 1H), 7.27-7.33 (m, 3H), Hz, 1H), 7.09 (d, J = 3.0 Hz, 1H), 7.95 (br s, 1H) r), 1707, 1611, 1528, 1484, 1350, 1279, 1229, 1196, 1154 cm ⁻¹	6.77-6.84 (m 6 (br s, 1H) 1229, 1196,	, 2H), 7.00 (s, 1154 cm.1	111), 7.15 (8, 1	.Н), 7.27-7.33	(m, 3H),
1.1317	mp 94-95 °C 1-1317 'II NMR (CDCl ₃) δ 1.77 (s, 3H), 1.81 (s, 3H), 2.26 (s, 6H), 4.63 (d, J = 6.6 Hz, 2H), 5.51 · 5.60 (m, 1H), 6.01 (s, 2H), .6.78- 6.89 (m, 3H), 6.97-7.15 (m, 5H) 1H NMR (CDCl ₃) δ 1.77 (s, 3H), 1.82 (s, 3H), 2.29 (s, 6H), 4.64 (d, J = 6.3 Hz, 2H), 5.53 · 5.60 (m, 1H), 6.99 · 7.21 (m,	CUCIA) & 1.77 (s, 3H) 4), 6.97-7.15 (m, 5H) CDCIA) & 1.77 (s, 3H)	(), 1.81 (s, 3H)), 2.26 (s, 6H),	4.63 (d, J = 6.	6 Hz, 2H), 5.5 6.3 Hz, 2H),	.1 - 5.60 (m, 1 6.53 - 5.60 (n	H), 6.01 (s, 2H	l), .6.78-
1319	6H), .7.33-7 mp 188-189 iH NMR (C 6.83 (d, J = (d, J = 8.7 I IR(KBr) 34	7.39 (m, 2H), 7.49 (d.d, J = 5.4 & 0.3 Hz, 1H), 7.80 (s, 1H), 7.92 (d, J = 8.1 Hz, 1H) C C CDCl ₃) & 1.31 (t, J = 7.5 Hz, 3H), 2.26 (s, 3H), 2.29 (s, 3H), 2.68 (q, J = 7.5 Hz, 2H), 5.17 (s, 2H), 5.70 (brs, 1H), s.6.8 Hz, 1H), 6.98-7.00 (m, 2H), 7.13 (d, J = 9.0 Hz, 2H), 7.26-7.30 (m, 2H), 7.38-7.48 (m, 5H), 7.78 (brs, 1H), 7.86 Hz, 1H) Hz, 1H) 144, 3269, 1710, 1533, 1487, 1269, 1244, 1199, 1174, 744, 697 cm ⁻¹	1, J = 5.4 & 0. 7.5 Hz, 3H), 9 0 (m, 2H), 7.1 1487, 1269, 1	3 Hz, 1H), 7.80 2.26 (s, 3H), 2. 3 (d, J = 9.0 H; 244, 1199, 11.	29 (s, 3H), 7.92 29 (s, 3H), 2.6 2, 2H), 7.26-7. 74, 744, 697 c.	(d, J = 8.1 Hz 38 (q, J = 7.5 I 30 (m, 2H), 7.3	, 1H) 1z, 2H), 5.17 ((s, 2H), 5.70 (b	re, 1H), H), 7.86
l-1320		δ 1.30 (t, J = 7.14 (d, J = 7.15)	: 7.6 Hz, 3H), 6 Hz, 2H), 7.2 1501, 1488, 1	2.27 (s, 3H), 2 6-7.51 (m, 7H) 260, 1241, 121	.28 (s, 3H), 2 , 7.79 (brs, 1F	.68 (q, J = 7.2 1), 7.86 (d, J = 697 cm ⁻¹	Hz, 2H), 3.9 8.8 Hz, 1H)	l (e, 3H), 5.21	(s, 2H),

Table 262

	mp186-187 Ն
	11 NMR (CDCL ₃) δ 1.30 (t, $J = 8.4$ Hz, 3H), 2.26 (s, 3H), 2.27 (s, 3H), 2.68 (q, $J = 7.5$ Hz, 2H), 5.20 (s, 2H), 7.04-7.14 (m,
1.1321	6H), 7.26-7.50 (m, 6H), 7.79 (brs, 1H), 7.86 (d, J = 8.7 Hz, 1H)
	IR(KBr) 3436, 3266, 1709, 1536, 1521, 1487, 1267, 1199, 1176, 744, 697 cm ⁻¹
	mp136-137 ℃ '
	11 NMR (CDCl.) 6 1.32 (t, J = 7.5 Hz, 3II), 2.28 (s, 3H), 2.30 (s, 3H), 2.70 (q, J = 7.5 Hz, 2H), 3.13 (s, 3H), 5.19 (s, 2H),
1.1.522	7.12-7.15 (m, 311), 7.26-7.29 (m, 311), 7.37-7.50 (m, 511), 7.80 (brs, 1H), 7.87 (d, J = 9.0 Hz, 1H)
	IR(KBr) 3435, 1725, 1536, 1486, 1363, 1292, 1266, 1179, 1163, 1108, 7970, 895, 811, 525 cm ⁻¹
	mp150.151 C
0001	1H NMR (CDCl ₃) δ 2.18 (s, 3H), 2.27 (s, 3H), 5.20 (s, 2H), 7.04-7.14 (m, 6H), 7.26-7.50 (m, 6H), 7.60 (d, J = 12.0 Hz, 1H),
1.1323	7.94 (brs, 111)
	IR(KBr) 3421, 3302, 1712, 1523, 1490, 1422, 1299, 1274, 1205, 1176, 1132, 743, 697 cm ⁻¹
	mp83.84 ℃
	1H NMR (CDCl ₃) & 1.30 (t, J = 7.6 Hz, 3H), 1.77 (s, 3H), 1.78 (s, 3H), 1.81 (s, 6H), 2.31 (s, 3H), 2.34 (s, 3H), 2.56 (q, J = 7.6
I-1324	1-1324 Hz, 2H), 3.80 (d, J = 6.4 Hz, 2H), 3.90 (s, 3H), 4.65 (d, J = 6.2 Hz, 2H), 5.44 (d, J = 6.2 Hz, 2H), 5.44 (t, J = 5.2 Hz, 1H), 5.59
	(t, J = 5.4 Hz, 1H), 6.73 (d, J = 8.0 Hz, 1H), 6.92.6.94 (m, 3H), 7.12.7.20 (m, 4H)
	IR(KBr) 3428, 3374, 2964, 1607, 1519, 1494, 1458, 1311, 1256, 1239, 1139, 1036, 1002, 855, 820 cm ⁻¹
	mp113.114 °C
	IH NMR (CDCl ₃) 6 1.30 (t, J = 7.4 Hz, 3H), 1.76 (s, 3H), 1.78 (s, 3H), 1.80 (s, 3H), 1.84 (s, 3H), 2.30 (s, 3H), 2.32 (s, 3H),
1.1325	2.55 (q, J = 7.6 Hz, 2H), 3.79 (d, J = 6.6 Hz, 2H), 4.63 (d, J = 6.6 Hz, 2H), 5.43 (t, J = 5.6 Hz, 1H), 5.55 (t, J = 6.6 Hz, 1H),
	5.73 (brs, 1H), 6.72 (d, J = 8.0 Hz, 1H), 6.83-6.98 (m, 3H), 7.11-7.19 (m, 4H)
	IR(KBr) 3413, 3298, 2965, 2924, 1518, 1494, 1435, 1242, 1127, 1013, 883 cm ⁻¹

Table 263

·	mp81-82 ℃
	111 NMR (CDCl3) & 1.29 (t, J = 7.4 Hz, 3H), 1.74 (s, 3H), 1.77 (s, 3H), 1.78 (s, 3H), 1.81 (s, 3H), 2.27 (s, 3H), 2.31 (s, 3H),
1.1326	1-1326 2.54 (q, $J = 7.2$ Hz, 2H), 3.79 (d, $J = 7.2$ Hz, 2H), 4.63 (d, $J = 6.6$ Hz, 2H), 5.42 (t, $J = 6.4$ Hz, 1H), 5.55 (t, $J = 6.6$ Hz, 1H),
	6.71 (d, J = 8.0 Hz, 1 H), 7.04.7.19 (m, 7 H)
	IR(KBr) 3413, 2969, 2912, 2856, 1613, 1520, 1492, 1295, 1261, 1127, 1004, 881, 813 cm ⁻¹
	mp94.95 °C
1,1397	111 NMR (CDCl ₃) δ 1.74 (s, 3H), 1.77 (s, 6H), 1.81 (s, 3H), 2.21 (s, 3H), 2.26 (s, 3H), 3.72 (d, $J = 6.9$ Hz, 2H), 4.63 (d, $J = 6.3$
7701-1	Hz, 211), 5.35 (t, J = 6.9 Hz, 111), 5.55 (t, J = 6.9 Hz, 111), 6.37-6.48 (m, 2H), 7.01-7.13 (m, 6H)
	1R(KBr) 3423, 2967, 2918, 1627, 1525, 1488, 1296, 1267, 1129, 981, 837, 805 cm ⁻¹
	mp 178-180°C (decomp.)
1,1999	1H NMR (DMSO-d6) 8 3.30 (8, 3H), 3.64 (8, 3H), 4.45 (8, 2H), 5.65 (8, 2H), 6.39 (8, 1H), 6.65 (dd, J = 8.4, 2.1 Hz, 1H), 6.74
0701.1	(d, J = 2.1 Hz, 1H), 6.84 (d, J = 8.7 Hz, 2H), 6.99 (d, J = 8.4 Hz, 1H), 7.43 (d, J = 8.7 Hz, 2H), 9.26 (s, 1H)
	IR (Nujol) 3487, 3382, 1696, 1670, 1691, 1523, 1491, 1468, 1243, 1202, 1114, 1077, 1013, 937, 811 cm ⁻¹
	mp 205-210°C (decomp.)
1,1399	'H NMR (DMSO-dc) 6 3.34 (s, 3H), 3.44 (s, 3H), 3.67 (s, 3H), 4.93 (s, 2H), 6.43 (s, 1H), 6.76 (dd, J = 8.4, 2.1 Hz, 1H), 6.85
701-1	(d, J = 2.1 Hz, 1H), 6.86 (d, J = 8.7 Hz, 2H), 7.04 (d, J = 8.4 Hz, 1H), 7.46 (d, J = 8.7 Hz, 2H)
	IR (Nujol) 3388, 3333, 3270, 1671, 1614, 1579, 1556, 1523, 1443, 1223, 1172, 1121, 1033, 922, 813 cm-1
	mp 185-187℃
	1H NMR (CDCl ₃) δ 1.79 (t, J = 2.6 Hz, 3H), 2.69 (m, 2H), 2.75 (s, 3H), 3.21 (s, 3H), 3.29 (s, 3H), 3.56 (s, 3H), 3.77 (s, 3H),
I-1330	4.17 (t, J = 6.6 Hz, 2H), 6.84 (s, 1H), 7.08 (d, J = 9.0 Hz, 1H), 7.36 (dd, J = 9.0, 2.1 Hz, 1H), 7.38 (d, J = 8.7 Hz, 2H), 7.40 (d,
	J = 2.1 Hz, 111), 7.68 (d, $J = 8.7 Hz$, 2H)
	IR (Nujol) 1604, 1520, 1480, 1175, 1151, 1081, 1012, 971, 948, 878, 840, 807 cm ⁻¹

Table 264

. 35

1.1331	form 1H NMR (CDCh.) & 1.81 (t, J = 2.4 Hz, 3H), 2.65 (m, 2H), 3.45 (s, 3H), 3.74 (s, 3H), 4.16 (t, J = 6.6 Hz, 2H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 2H), 6.95 (m, 2H), 7.07 (brs, 1H), 7.07 (d, J = 8.7 Hz, 2H) 1R (Nujol) 3427, 1612, 1586, 1523, 1489, 1251, 1224, 1113, 1071, 1012 cm.¹
1.1332	foam 111 NMR (CDCh, 3 3.45 (s, 311), 3.75 (s, 311), 4.16 (m, 211), 4.76 (m, 211), 5.89∼6.02 (m, 211), 6.45 (s, 111), 6.92 (d, J = 8.7 Hz, 211), 6.96 (m, 211), 7.09 (brs, 111), 7.53 (d, J = 8.7 Hz, 211) 1R (Nujol) 3433, 1612, 1588, 1523, 1489, 1286, 1248, 1224, 1175, 1113, 1070, 1011 cm ⁻¹
1.1333	foam IH NMR (CDCl ₃) δ 3.45 (s, 3H), 3.74 (s, 3H), 4.11 (m, 2H), 4.67 (m, 2H), 5.96~6.12 (m, 2H), 6.45 (s, 1H), 6.92 (d, $J = 8.7$ Hz, 2H),6.92 (d, $J = 8.4$ Hz, 1H), 6.96 (dd, $J = 8.4$, 2.1 Hz, 1H), 7.08 (d, $J = 2.1$ Hz, 1H), 7.53 (d, $J = 8.7$ Hz, 2H) IR (Nujol) 3434, 1612, 1688, 1623, 1489, 1285, 1224, 1174, 1112, 1070, 1011 cm. ¹
1.1334	foam 111 NMR (CDCl ₃) & 1.95 (e, 311), 3.45 (e, 311), 3.75 (e, 311), 4.11 (e, 2H), 4.68 (d, J =6.9 Hz, 2H), 5.75 (d, J = 6.9 Hz, 1H), 6.45 (e, 1H), 6.91 (d, J = 8.7 Hz, 2H), 6.96 (e, 2H), 7.08 (e, 1H), 7.53 (d, J = 8.7 Hz, 2H) IR (KBr) 3390, 1612, 1685, 1623, 1491, 1225, 1072, 1003, 822 cm ⁻¹
1-1335	m.p 179-180 °C 1H NMR (CDCl ₃) \$\delta\$ 1.88 (s, 3H), 3.45 (s, 3H), 3.75 (s, 3H), 4.07 (s, 2H), 4.69 (d, J=6.6 Hz, 2H), 5.89 (d, J=6.6 Hz, 1H), 1-1335 6.45 (s, 1H), 6.91 (d, J=8.7 Hz, 2H), 6.92 (d, J=8.4 Hz, 1H), 6.96 (dd, J=1.8, 8.4 Hz, 1H), 7.07 (d, J=1.8 Hz, 1H), 7.53 (d, J=8.7 Hz, 2H) J=8.7 Hz, 2H) IR (KBr) 3392, 1609, 1684, 1623, 1492, 1226, 1116, 1072, 1002, 813, 782 cm. ¹

1H NMR (CDCl3) 6 1.50 (8, 3H), 1.67 (8, 3H), 1.96 (8, 3H), 3.45 (8, 3H), 3.77 (8, 3H), 4.13-4.49 (m, 2H), 5.23-5.30 (m, 1H),

mp 171-172 C

1.1340

5.59 (s, 1H), 6.13 (s, 1H), 6.47 (s, 1H), 6.92-6.98 (m, 2H), 7.18-7.35 (m, 3H), 7.50-7.57 (m, 2H)

IR (KBr) 3390, 3140, 2935, 1640, 1523, 1401, 1240, 1119, 1070, 835, 820 cm⁻¹

Table 265

50	foa 111 1-136 5.2 1.8	foa 1.1337 Hz, 1R.	foam 14 NM 1-1338 1H), 6. 7.45 (d	foam 1H NMR (4 1-1339 Hz, 1H), 6 7.51 (d, J = 118 (78 Rz) 3	
45	foam 111 NMR (CD3O) 5.25 (dt, J = 10.5, 1.8, 8.4 Hz, 1H), 1R (KBr) 3399, 29	foam 'H NMR (CDCl ₃) Hz, 2H), 6.98 (dd, IR (KBr) 3431, 16	foam ¹ H NMR (CD3OD) 6 ¹ H), 6.43 (s, 1H), 6.79 ¹ 7.45 (d, J = 8.7 Hz, 2H) ¹ R (KBr) 3409, 1701, 16	foam 1H NMR (CDCl ₃)	01 ,1150 ,1011
40	foam 111 NMR (CD3OD) δ 3.38 (a, 311), 3.67 (a, 311), 3.88 (dd, J = 7.8, 9.9 Hz, 111), 4.10 (dd, J = 3.6, 9.9 Hz, 111), 4.5 5.25 (dt, J = 10.5, 1.5 Hz, 1H), 5.44 (dt, J = 17.4, 1.5 Hz, 1H), 6.00 (ddd, J = 5.4, 10.5, 17.4 Hz, 1H), 6.43 (a, 1H), 6.7 1.8, 8.4 Hz, 1H), 6.85 (d, J = 8.7 Hz, 2H), 6.86 (d, J = 1.8 Hz, 1H), 6.92 (d, J = 8.4 Hz, 1H), 7.45 (d, J = 8.7 Hz, 2H) 1R (KBr) 3399, 2934, 1612, 1688, 1623, 1489, 1254, 1114, 1071, 1019, 939, 816, 2003.	foam 111 NMR (CDCl ₃) \(\delta \) 3.45 (8, 3H), 3.75 (8, 3H), 4.20 (t, J = 2.1 Hz, 2H), 4.84 (t, J = 2.1 Hz, 2H), 6.45 (8, 1H), 6.9 Hz, 2H), 6.98 (dd, J = 2.1, 8.4 Hz, 1H), 7.04 (d, J = 8.4 Hz, 1H), 7.09 (d, J = 2.1 Hz, 1H), 7.45 (d, J = 8.7 Hz, 2H) IR (KBr) 3431, 1612, 1589, 1523, 1489, 1404, 1224, 1113, 1070, 1011, 939, 826 cm ⁻¹	foam 1H NMR (CD3OD)	foam 1H NMR (CDCl ₃)	20, 1011, 1000
35	310), 3.67 (#, 31 .44 (dt, J = 17.7 Hz, 2H), 6.86 3, 1523, 1489	l), 3.75 (s, 3H), z, 1H), 7.04 (d,	H), 3.67 (s, 3H) 2.1, 8.4 Hz, 1H	8.7 Hz, 2H), 6	1024, 1400, 1
30	1), 3.88 (dd, J = 4, 1.5 Hz, 1H), (d, J = 1.8 Hz, 107	4.20 (t, J = 2.1 J = 8.4 Hz, 1H 224, 1113, 107), 4.25 (d, J = 2.), 6.84 (d, J = 8.)	4.21 (d, J = 21.:	223, 1112, 107
25	6.00 (ddd, J = 11), 6.92 (d, J	Hz, 2H), 4.8 ⁴), 7.09 (d, J = 0, 1011, 939,	1.0 Hz, 2H), 4 1.7 Hz, 2H), 6	3 Hz, 2H), 4.6 Iz, 1H), 6.98 (J, 1011, 939, 8
20	111), 4.10 (dd, 5.4, 10.5, 17.4	2.1 Hz, 1Hz, 1H), 7 826 cm ⁻¹	.84 (d, J = 7.5. .86 (d, J = 2.1.	6 (dd, J = 1.8, dd, J = 1.5, 8.4	525 cm.1
15 .	J = 3.6, 9.9 II Hz, 1H), 6.43	, 2H), 6.45 (s,	Hz, 2H), 5.58 Hz, 1H), 6.96	7.5 Hz, 2H), 6 1 Hz, 1H), 7.09	
10	(CD3OD) \$\delta\$ 3.38 (8, 311), 3.67 (8, 311), 3.88 (dd, J = 7.8, 9.9 Hz, 111), 4.10 (dd, J = 3.6, 9.9 Hz, 111), 4.51 (m, 114), \$\delta\$ = 10.5, 1.5 Hz, 114), 5.44 (dt, J = 17.4, 1.5 Hz, 114), 6.00 (ddd, J = 5.4, 10.5, 17.4 Hz, 114), 6.43 (8, 114), 6.79 (dd, J = (z, 114), 6.85 (d, J = 8.7 Hz, 214), 6.86 (d, J = 1.8 Hz, 114), 6.92 (d, J = 8.4 Hz, 114), 7.45 (d, J = 8.7 Hz, 214) 3399, 2934, 1612, 1588, 1523, 1489, 1254, 1114, 1071, 1019, 939, 816, 5223	CDCl ₃) \(\text{5}\) 3.45 (s, 3H), 3.75 (s, 3H), 4.20 (t, J = 2.1 Hz, 2H), 4.84 (t, J = 2.1 Hz, 2H), 6.45 (s, 1H), 6.92 (d, J = 8.7 Hz, 1H), 7.04 (d, J = 8.4 Hz, 1H), 7.09 (d, J = 2.1 Hz, 1H), 7.45 (d, J = 8.7 Hz, 2H) (4.31, 1612, 1589, 1523, 1489, 1404, 1224, 1113, 1070, 1011, 939, 826 cm ⁻¹	(CD3OD) δ 3.38 (8, 3H), 3.67 (8, 3H), 4.25 (d, J = 21.0 Hz, 2H), 4.84 (d, J = 7.5 Hz, 2H), 5.58 (dt, J = 19.5, 7.5 Hz, 1H), 6.79 (dd, J = 2.1, 8.4 Hz, 1H), 6.84 (d, J = 8.7 Hz, 2H), 6.86 (d, J = 2.1 Hz, 1H), 6.96 (d, J = 8.4 Hz, 1H), 8.7 Hz, 2H) = 8.7 Hz, 2H) 1409, 1701, 1612, 1691, 1523, 1489, 1404, 1246, 1113, 1071, 1010, 939, 816, 2001.	foam 1H NMR (CDCl ₃)	
5	1H),	8.7	Hz,	7.5 H),	\neg

40

Table 266

	mp 216-218 \C
:	111 NMR (CDCl3+CD3OD) & 1.46 (s, 311), 1.67 (s, 311), 1.95 (s, 311), 2.10 (s, 311), 3.46 (s, 311), 4.16-4.47 (m, 211), 5.21-5.28
1.1.591	(m, 1H), 6.79 (s, 1H), 6.88-6.95 (m, 2H), 7.11-7.27 (m, 3H), 7.45-7.52 (m, 2H)
	IR (Kir) 3337, 3099, 2928, 1637, 1608, 1587, 1521, 1444, 1409, 1261, 1232, 1161, 836, 769, 592, 540 cm ⁻¹
	mp 103-105 C
	1H NMR (CDCl3) & 1.15 (d, J = 6.8 Hz, 6H), 2.26 (s, 3H), 3.08 (sept, J = 6.8 Hz, 1H), 4.94 (s, 1H), 5.20 (s, 2H), 6.88 (d, J =
1-1342	8.7 Hz, 2H), 7.04-7.07 (m, 3H), 7.12-7.18 (m, 1H), 7.18 (s, 1H), 7.20 (d, J = 8.7 Hz, 2H), 7.32-7.51 (m, 5H)
	IR (KBr) 3429, 1522, 1490, 1262, 1227, 1128, 1011, 833 cm ⁻¹
	mp 115-117 C
	1H NMR (CDCI:) 6 1.15 (d, J = 6.6 Hz, 6H), 1.77 (s, 3H), 1.82 (s, 3H), 2.27 (s, 3H), 3.08 (sept, J = 6.8 Hz, 1H), 4.64 (d, J =
1.1343	1-1343 6.9 Hz, 2H), 4.86 (s, 1H), 5.56 (t, J = 6.9 Hz, 1H), 6.89 (d, J = 8.6 Hz, 2H), 7.03 (t, J = 8.4 Hz, 1H), 7.05-7.19 (m, 3H), 7.19 (s,
	1H), 7.21 (d, $J = 8.6$ Hz, 2H)
	IR (KBr) 3524, 1611, 1523, 1489, 1260, 1228, 1200, 1128, 836 cm ⁻¹
	mp 119-120 °C
	¹ H NMR (CDCl ₃) δ 1.15 (d, J = 6.9 Hz, 6H), 2.26 (s, 3H), 3.08 (sept, J = 6.8 Hz, 1H), 4.79 (d, J = 6.3 Hz, 2H), 4.85 (s, 1H),
1.1344	1-1344 6.25 (t, J = 6.3 Hz, 1H), 6.89 (d, J = 8.7 Hz, 2H), 7.01 (t, J = 8.4 Hz, 1H), 7.07-7.12 (m, 2H), 7.15 (dd, J = 12.0, 2.1 Hz, 1H),
	7.18 (s, 1H), 7.20 (d, J = 8.7 Hz, 2H)
	IR (KBr) 3425, 1610, 1523, 1488, 1300, 1263, 1300, 1263, 1227, 1134, 1038, 896 cm ⁻¹
	mp 109-110 C
1 1946	¹ H NMR (CDCl ₃) 6 1.34 (d, J = 6.9 Hz, 3H), 2.24 (e, 3H), 4.00 (q, J = 6.9 Hz, 2H), 4.77-4.79 (m, 3H), 6.24 (t, J = 6.3 Hz,
1.1340	1H), 6.86-6.90 (m, 2H), 6.98-7.19 (m, 4H), 7.47-7.50 (m, 2H)
	IR (CHCl ₃) 3596, 2927, 1612, 1523, 1493, 1476, 1388, 1299, 1259, 1173, 1127, 1049, 885, 834 cm ⁻¹

Table 267

1-1346	mp 114-116 °C. 11 NMR (CDCl ₃) \$\delta\$ 1.33 (d, J = 6.9 Hz, 3H), 1.77 (s, 3H), 1.81 (s, 3H), 2.24 (s, 3H), 4.00 (q, J = 6.9 Hz, 2H), 4.63 (m, 2H), 4.73 (br, 1H), 5.56 (m, 1H), 6.81 (s, 1H), 6.86-6.90 (m, 2H), 7.00-7.19 (m, 4H), 7.47-4.51 (m, 2H) IR (CHCl ₃) 3596, 2929, 2877, 1610, 1623, 1493, 1476, 1386, 1329, 1316, 1297, 1261, 1173, 1125, 1048, 992, 834 cm ⁻¹
1-1347	
I-1348	mp 156-159 °C ¹ H NMR (CDCl ₃)
1.1349	mp 155-156 °C ¹ HI NMR (CDCl ₃) & 1.15 (t, J = 6.9 Hz, 31l), 3.60 (q, J = 6.9 Hz, 2H), 3.75 (s, 3H), 3.90 (s, 3H), 4.93 (bs, 1H), 5.20 (s, 2H), 5.98 (s, 1H), 6.46 (s, 1H), 6.90-7.05 (m, 5H), 7.26-7.56 (m, 7H) IR (KBr) 3409, 2938, 1613, 1522, 1438, 1416, 1396, 1382, 1360, 1268, 1232, 1211, 1169, 1131, 1113, 1078, 1022, 1006 cm ⁻¹
1.1350	mp 58-60 ℃ ¹ H NMR (DMSO-d ₆) δ 1.71 (s, 6H), 2.21 (s, 3H), 2.22 (s, 3H), 3.71-3.75 (m, 2H), 5.11 (br s, 2H), 5.25-5.29 (m, 1H), 5.50-5.53 (m, 1H), 6.60-6.63 (m, 2H), 6.66-6.73 (m, 1H), 6.95-7.05 (m, 6H) ¹ R (KBr) 3600-2800(br), 1623, 1527, 1492, 1454, 1428, 1331, 1269, 1257, 1184, 1116 cm ⁻¹

Table 268

	mp 140.142 C (dec.)
	"H NMR (CDCh) 6 2.33 (8, 3H), 4.93 (8, 1H), 5.19 (8, 2H), 6.89 (d, J = 8.7 Hz, 2H), 7.06 (t, J = 8.6 Hz, 1H), 7.23 (d, J = 8.7
- es	Hz, 2H), 7.24-7.50 (m, 10H)
	IR (KBr) 3400, 1609, 1529, 1490, 1269, 1243, 1005, 807, 745 cm. ¹
	mp 114-116 ℃
	411 NMR (CDCl3) & 1.77 (8, 311), 1.81 (8, 311), 2.33 (8, 311), 4.63 (4, J = 6.9 Hz, 211), 4.89 (8, 111), 5.54 (t, J = 6.9 Hz, 114),
2021-	6.89 (d, J = 8.6 Hz, 2H), $7.04 (t, J = 8.6 Hz, 1H)$, $7.23 (d, J = 8.6 Hz, 2H)$, $7.26-7.43 (m, 5H)$
	IR (KBr) 3368, 1609, 1526, 1490, 1271, 1241, 1131, 991, 827, 811 cm.1
	mp 78-79 °C
1.1353	1.1353 1H NMR (CDCl ₃) δ 1.77 (s, 3H), 1.82 (s, 3H), 2.24 (s, 3H), 2.27 (s, 3H), 4.64 (d, J = 6.6 Hz, 2H), 5.51 · 5.59 (m, 1H), 6.98 · 1.1353
	7.20 (m, 7H), 7.28 · 7.36 (m, 2H)

Table 269

5																		
10		Å	-CH2CH=CMe2	-(CH2)2CH=CMe2	$-CH_2CH = CCl_2$	-CH₂C≡CMe	-CH2C6H4-4-Me	$-(CH_2)_2CH = CMe_2$	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-(CH2)2CH=CMe2	-CH2CH=CCl2	CH ₂ C≡CMe	-CH2C6H4-4-Me	-(CH2)2CH=CMe2	-CH2CH=CCl2	-CH2C≡CMe
15		×	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		R13	ОМв	ОМв	OMs	OMs	8MO	соон	нооэ	СООН	СООН	СН2ОН	СН2ОН	СН2ОН	CH ₂ OH	Ţ	F	F
20	•	R12	H	Ξ	H	Н	Н	Н	Н	Н	H	H	H	Ή	Н	Н	Н	Н
		E.	프	H	H	Н	Н	Н	Н	Н	H	H	H	Ξ	H	Н	Н	Н
	€	R10	Ξ	Ξ	Ή	Ξ	Н	Н	Ξ	H	н	H	H	田	H	Н	Н	Н
25	±1.2 × 2.1 × 2.1 × 2.1 × 2.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 × 3.1 ×	R 9	OH	ОН	НО	ОН	ЮН	ОН	OII	ОН	НО	НО	НО	НО	ЮН	ОН	ЮН	ЮН
30	5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	R 8	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe
	84 S.H.	п,	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	OMe	ОМе	OMe	OMe	ОМе
35		2 2	=	픠	Ξ	三	Ξ	三	三	Ξ	三	王	표	王	Ξ	Ξ	H	H
	æ I	2 ≥	티	三	三	픠	Ξ	三	=	=	Ξ	H	H	Ξ	H	H	Н	Н
		~	=	=	三	Ξ	H	H	=	=	Ħ	H	H	H	Н	Н	H	H
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1.1354 1.1355 1.1356

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1-1361 I-1362

I-1363 I-1364 I-1365

I-1366 I-1367 I-1368

I-1369

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Table 271

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OH H H H H OMe OMe CH2OH	II II II OMe OMe	II II OMe OMe	II II OMe OMe	II OMe OMe	OMe OMe	OMe				크	=	픠	≅	이	$-(CH_2)_2CH = CMe_2$
OH H H H H OMe OMe CH ₂ OH	H H H H OMe OMe	H H H OMe OMe	H H OMe OMe	H OMe OMe	ОМе ОМе	ОМе			푀	H	Н	Н	ОН	0	-CH2CH=CCl2
OH H H H H H OMe OMe CH2OH	II II H H II OMe OMe	H H H OMe OMe	H H OMe OMe	H OMe OMe	ОМе ОМе	ОМе		CHY	핅	Ξ	H	Н	НО	0	– CH₂C≡CMe
OH H H H H H OMe OMe CH ₂ OH	H' H H H OMe OMe	Н Н Н ОМе ОМе	H H OMe OMe	H OMe OMe	ОМе ОМе	ОМе	ОМе		핑	Ξ	H	Н	НО	0	-CH2C6H1-4-Me
OH H H H H H OMe OMe CH2OH	H H H H OMe OMe	H H II OMe OMe	H H OMe OMe	H OMe OMe	ОМе ОМе	OMe	OMe		Н	Ξ	Ξ	H	OMs	0	-CH2CH=CMe2
OII II II II II OMe OMe CH ₂ OH	II II II OMe OMe	II OMe OMe	II OMe OMe	II OMe OMe	ОМе ОМе	OMe	—4	CH2	H	프	Ξ	H	OMs	0	-(CH2)2CH = CMe2
OH H H H H OME OME CH2OH	Н Н Н Н ОМе ОМе	Н Н Н ОМе ОМе	Н Н ОМе ОМе	Н ОМе ОМе	ОМе ОМе	ОМе		CH2	HO	H	Н	Н	OMB	0	-CH2CH=CCl2
OH H H H H H OMe OMe CH ₂ OH	H H H H OMe OMe	H H H OMe OMe	H H OMe OMe	H OMe OMe	ОМе ОМе	OMe			HO	Ξ	H	H	OMs	0	-CH2C≡CMe
OH H H H H H OMe OMe CH.	H H H H OMe OMe	H H OMe OMe	Н Н ОМе ОМе	Н ОМе ОМе	ОМе ОМе	ОМе		CH	СН2ОН	프	Ξ	H	OMB	0	-CH2C6H4-4-Me
OH H H H H H OMe OMe CH	H H H H OMe OMe	H H H OMe OMe	Н Н ОМе ОМе	H OMe OMe	ОМе ОМе	OMe		CH	СН2ОН	三	Ξ	Ξ	соон	0	-CH2CH=CMe2
OH H H H H H OMe OMe CH	H H H H OMe OMe	Н Н Н ОМе ОМе	Н Н ОМе ОМе	Н ОМе ОМе	ОМе ОМе	ОМе		CH	СН2ОН	Ξ	프	H	соон	0	-(CH2)2CH=CMe2
OH H H H H H OMe OMe CH2OH	Н Н Н Н ОМе	н н н оме	Н Н ОМе	н ОМе	ОМе		ОМе СН	CH	HO	Ξ	Ξ	H	С00Н	0	- CH2CH=CCl2
OH H H H H H OMe OMe CH	H H H H OMe OMe	Н Н Н ОМе ОМе	Н Н ОМе ОМе	Н ОМе ОМе	ОМе ОМе	ОМе		СН	CH ₂ OH	Ξ	Ξ	Н	соон	0	-CH2C≡CMe
OH H H H H H OMe OMe CH	H H H H OMe OMe	Н Н Н ОМе ОМе	H H OMe OMe	Н ОМе ОМе	ОМе ОМе	ОМе		E	СН2ОН	Ξ	H	Н	соон	0	-CH2C6H4-4-Me
OH H H H H H OMe OMe CH	Н Н Н Н ОМе ОМе	Н Н Н ОМе ОМе	Н Н ОМе ОМе	Н ОМе ОМе	ОМе ОМе	ОМе		E	СН2ОН	Ξ	Ħ	Ξ	СН2ОН	0	$-CH_2CH = CMe_2$
OH H H H H H OMe OMe CH	H H H H OMe OMe	Н Н Н ОМе ОМе	Н Н ОМе ОМе	Н ОМе ОМе	ОМе ОМе	ОМе		핑	СН2ОН	Ξ	H	Ξ	СН2ОН	0	-CH ₂ CH=CCl ₂
OH H H H H H OMe OMe CH	H H H H OMe OMe	H H H OMe OMe	H H OMe OMe	H OMe OMe	OMe OMe	ОМе		E	СН2ОН	H	Н	H	CH20H	0	-CH2C≡CMe
OH H H H H OMe OMe CH	Н Н Н Н ОМе ОМе	H H H OMe OMe	H H OMe OMe	Н ОМе ОМе	ОМе ОМе	ОМе	_	СН	СН2ОН	Н	H	Н	CH ₂ OH	0	-CH2C6H4-4-Me
OH H H H H H OMe OMe CH	H H H H OMe OMe	H H H OMe OMe	H H OMe OMe	H OMe OMe	OMe OMe	ОМе		H	СН2ОН	H	Н	H	R	0	-CH2CH=CMe2
OH H H H H H OMe OMe CH ₂ OH	H H H H OMe OMe	H H H OMe OMe	Н Н ОМе ОМе	Н ОМе ОМе	ОМе ОМе	OMe		CH2	ОН	H	H	H	Ŧ	0	- (CH ₂) ₂ CH=CMe ₂
OH H H H H H OME OME CH	H H H OMe OMe	H H H H OMe OMe	H H OMe OMe	H OMe OMe	OMe OMe	ОМе		CH3	CH20H	Н	H	H	Ą	0	- CH2CH=CCl2

'Table 272

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OII II II II OME OME CH ₂ OH II OME OME ME II		OH	Ξ	=	H	Ξ	目	OMe	OMe	СН2ОН	Ξ	Ξ	Ξ	Œ,	0	– CH2C≡CMe
OII II II II OME OME ME II II II OME OME ME II II II OME OME ME II II II OME OME OME II II II OME OME OME II II II OME OME II	-	OII	Ξ	Ξ	Н	Н	н	OMe	ОМе	СН2ОН	Ξ	Н	Ή	<u>-</u>	0	-CH2C6H4-4-Me
OH H H H OMe OME OME H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H<	-	OIII	=	=	н	Н	Н	ОМе	ОМе	Me	Ξ	H	Ħ	HO	0	-CH2CH=CCl2
OH H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	2	OH	Ξ	Ξ	Ξ	Н	H	OMe	ОМе	Me	H	Ξ	Ξ	ЮН	0	-CH2C≡CMe
OHI II II OME OME OME II II OME OME OME II II II II OME OME OME II	ြင	НО	=	Ξ	Ξ	Н	H	OMe	OMe	Me	=	×	Ξ	ОМв	0	-CH2CH=CMe2
OII II II II OME OME ME II II OME OME OME II II II II II II OME OME OME II II II II II II III II III IIII III III IIII	1	110	=	=	Ξ	=	=	OMe	ОМе	Me	=	Ξ	Ξ	ОМв	0	-(CH2)2CH=CMe2
OH H H H OME OME ME H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H </td <td>20</td> <td>OH</td> <td>Ξ</td> <td>=</td> <td>H</td> <td>H</td> <td>H</td> <td>OMe</td> <td>ОМе</td> <td>Me</td> <td>Ξ</td> <td>H</td> <td>Ξ</td> <td>ОМв</td> <td>0</td> <td>-CH2CH=CCl2</td>	20	OH	Ξ	=	H	H	H	OMe	ОМе	Me	Ξ	H	Ξ	ОМв	0	-CH2CH=CCl2
OH H H OME OME ME H H H OME OME ME H H H OME OME ME H H H H OME OME H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	6	OH	H	H	Н	н	Н	ОМе	ОМе	Ме	Н	Н	H	ОМв	0	-CH2C≡CMe
OH H H H OMe OMe Me H H COOH O OH H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H <td< td=""><td>9</td><td>ОН</td><td>Ξ</td><td>Ħ</td><td>П</td><td>н</td><td>Н</td><td>ОМе</td><td>ОМе</td><td>Me</td><td>H</td><td>H</td><td>Ξ</td><td>ОМв</td><td>0</td><td>-CH2C6H4-4-Me</td></td<>	9	ОН	Ξ	Ħ	П	н	Н	ОМе	ОМе	Me	H	H	Ξ	ОМв	0	-CH2C6H4-4-Me
OH H H H OMe OMe Me H H COOH O OH H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H <td< td=""><td>_</td><td>OH</td><td>Н</td><td>Н</td><td>Н</td><td>Н</td><td>н</td><td>ОМе</td><td>ОМе</td><td>Me</td><td>H</td><td>H</td><td>Ξ</td><td>НООО</td><td>0</td><td>-CH2CH=CMe2</td></td<>	_	OH	Н	Н	Н	Н	н	ОМе	ОМе	Me	H	H	Ξ	НООО	0	-CH2CH=CMe2
OH H H H OMe OMe Me H H COOH O OH H H H H OMe OMe H H H O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O O	63	НО	Н	Н	Н	Н	Н	OMe	OMe	Me	Ή	H	H	НООО	0	-(CH ₂) ₂ CH=CMe ₂
OH H H H OMe OMe Me H H COOH O OH H H H H OMe OMe Me H H H O O O O H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	65	ЮН	Н	Н	Н	Н	Н	ОМе	ОМе	Me	H	H	Ξ	СООН	0	-CH2CH=CCl2
OH H H OMe OMe Me H H COOH O OH H H H H OMe OMe Me H H CH ₂ OH O OH H H H H OMe OMe Me H H CH ₂ OH O OH H H H H OMe OMe Me H H CH ₂ OH O OH H H H H OMe OMe Me H H CH ₂ OH O OH H H H H OMe OMe Me H H CH ₂ OH O OH H H H H OMe OMe Me H H H CH ₂ OH O	4	ОН	H	Ξ	Н	H	Н	OMe	OMe	Me	Н	H	Ή	СООН	0	-CH2C≡CMe
OH H H H OMe OMe Me H H CH ₂ OH O OH H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	2	НО	Н	Н	Н	Н	Н	OMe	ОМе	Me	H	Ή	Ħ	СООН	0	-CH2C6H4-4-Me
OH H H H OMe OMe Me H H CH ₂ OH O OH H H H H H OMe OMe Me H H H CH ₂ OH O OH H H H H OMe OMe Me H H CH ₂ OH O OH H H H H OMe OMe Me H H H CH ₂ OH O OH H H H H H OMe OMe H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	9	НО	Н	Н	Н	Н	Н	OMe	OMe	Me	Н	H	H	СН2ОН	0	-CH2CH=CMe2
OH H H H OMe OMe Me H H CH ₂ OH O OH H H H H OMe OMe Me H H H CH ₂ OH O OH H H H H H H H H H H H O OH H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H<	<u></u>		Ħ	н	Н	Н	Н	OMe	ОМе	Me	Н	H	H	СН2ОН	0	-(CH2)2CH=CMe2
OH H H H OMe OMe Me H H H CH ₂ OH O OH H H H H OMe OMe Me H H H H O OH H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	80	НО	Н	Н	Н	Н	Н	ОМе	OMe	Me	Н	Н	H	СН2ОН	0	-CH2CH=CCl2
OH H H H OMe OMe Me H H H OMe OMe Me H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H <t< td=""><td>9</td><td>НО</td><td>Н</td><td>н</td><td>Н</td><td>Н</td><td>Ħ</td><td>OMe</td><td>OMe</td><td>Me</td><td>Н</td><td>Н</td><td>Ξ</td><td>СН2ОН</td><td>0</td><td>- CH₂C≡CMe</td></t<>	9	НО	Н	н	Н	Н	Ħ	OMe	OMe	Me	Н	Н	Ξ	СН2ОН	0	- CH₂C≡CMe
OH H H H H OMe OMe Me H H H F O OH H H H H OME OME ME H H H F O	0	НО	Н	Н	Н	Н	H	OMe	OMe	Me	H	H	Ξ	СН2ОН	0	-CH2C6H4-4-Me
OH H H H H H OMe OMe Me H H H F O	-	НО	Н	Н	H	H	H	ОМе	OMe	Me	H	H	Ξ	Œ,	0	-CH2CH=CMe2
	67	но	Н	Н	Н	Н	Ή	OMe		Me	Н	H	H	Œ,	0	-(CH2)2CH=CMe2

Table 273

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-CH2CH=CCl2	CH₂C≡CMe	-CH ₂ C ₆ H ₄ -4-Me	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	- (CH2)2CH=CMe2	-CH2CH=CCl2	−CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	-CH2C≡CMe	-CH2CgH4-4-Me	-CH2CH=CMe2	-(CH2)2CH=CMe2	-CH2CH=CCl2	CH2C≡CMe	-CH2C6H4-4-Me	-(CH2)2CH=CMe2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F	F	Ŗ	НО	НО	НО	ОМв	ОМв	OMs	OMs	НООО	СООН	СООН	СООН	СООН	CH ₂ OH	СН2ОН	СН2ОН	СН2ОН	CH ₂ OH	स
Н	Н	Н	Н	Н	Н	H	H	H	Н	Н	H	H	Н	Н	H	Н	Н	Н	Н	Н
Н	Н	H	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	H	H	н	Н	Н
H	Н	Н	Н	Н	Н	Н	H	H	Н	Н	Н	Н	Н	H	Н	Н	Н	H	Н	H
Me	Me	Me	Н	н	Н	Н	Н	Н	Н	Н	Н	Н	Н	I	H	Н	Н	Н	Н	Н
OMe	OMe	OMe	ОМе	ОМе	OMe	ОМе	ОМе	ОМе	ОМе	OMe	OMe	OMe	ОМе	ОМе	ОМе	OMe	ОМе	ОМе	ОМе	OMe
OMe	ОМе	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	OMe	ОМе	ОМе	ОМе	OMe	ОМе	ОМе	ОМе	OMe
H	H	Η	Ή	H	11	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
Ξ	Н	H	H	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	H	Н	Н
H	H	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
Ξ	11	H	H	Н	11	Н	Н	Н	Н	н	Н	Н	Н	н	Н	Н	Н	Н	Н	Н
Ξ	H	工	Н	Н	11	Н	Н	Н	Н	Н	Н	H	Н	Н	H	Н	H	Н	Н	Н
IIO	НО	ЮН	ОН	OII	011	ОН	ОН	ОН	ОН	ОН	OH	ОН	ОН	OII	OH	ОН	ОН	ОН	НО	НО
1.1433	1-1434	I-1435	I-1436	I.1437	1.1438	1.1439	I-1440	1.1441	I.1442	1.1443	I-1444	I-1445	I-1446	1.1447	1-1448	I-1449	1-1450	1.1451	I-1452	I.1453

Table 274

1-1454 OH	╎┈┝┈┡┈┡┈┡┈┡┈┡	HO HO HO HO		 	H H H H H H H H H H H H H H H H H H H	0 0 0 0 0 0	$-CH2C \equiv CMe$ $-CH2C6H4 - 4 - Me$ $-(CH2)2CH = CMe2$ $-CH2CH = CCl3$ $-CH2C = CMe$ $-CH2C = CMe$ $-CH2C = CMe$ $-CH2C = CMe$
	 					0 0 0 0 0 0	-CH2C6H4-4-Me $-(CH2)2CH=CMe2$ $-CH2CH=CCl2$ $-CH2C=CMe$ $-CH2C6H4-4-Me$ $-CH2CH=CMe2$
	 			- 		00000	-(CH ₂) ₂ CH=CMe ₂ -CH ₂ CH=CCl ₃ -CH ₂ C≡CMe -CH ₂ CG+4-4-Me -CH ₂ CH=CMe ₂
	│ 					0 0 0 0	$-CH_2CH = CCl_2$ $-CH_2C \equiv CMe$ $-CH_2C_6H_4 - 4 - Me$ $-CH_2CH = CMe_2$
						000	-CH ₂ C≡CMe -CH ₂ C ₀ H ₄ -4-Me -CH ₂ CH=CMe ₂
H H H H F F H H H H H H H H H H H H H H						0 0 0	-CH ₂ C ₆ H ₄ -4-M ₆ -CH ₂ CH=CM ₆₂
H H H H H H H H H H H H H H H H H H H		1111				0 0	-CH2CH=CMe2
H H H H H H H H H H H H H H H H H H H		+++		-		0	
H H H H H H H H H H H H H H H H H H H		++		-	ł	-	- (CH ₂) ₂ CH=CMe ₂
H H H H H H H H H H H H H H H H H H H		_	_		н омв	0	-CH2CH =CCl2
H H H H H H H H H H H H H H H H H H H	-		ļ	+	H OM8	0	-CH2C≡CMe
H H H H H H H H H H H H H H H H H H H	de OMe	1	H	H	н ОМв	0	-CH ₂ C ₆ H ₄ -4-Me
H H H H H H H H H H H H H H H H H H H	OMe OMe	ОН	H	H	н соон	9	CH2CH=CMe2
H H H F F H F H F H F H H H H H H H H H	Ac OMe	ОН	н	H	н соон	9	-(CH2)2CH = CMe2
H H H H H H H H H H H H H	de OMe	ОН	H	н	н соон	0	-CH2CH=CCl2
H H H H F	ле ОМе	ОН	H	H	н соон	0	CH2C≡CMe
I II II II F	de OMe	ОН	H	Н	Н СООН	0	-CH2CoH4-4-Me
	Ле ОМе	ОН	H	H	н снаон	0	-CH2CH=CMe2
OH H H H F OMe	de OMe	ОН	H	H	н снаон	0	-(CH ₂) ₂ CH=CMe ₂
OH H H H F OMe	de OMe	ОН	H	H	н снаон	0	-CH2CH=CCl2
H H H F	OMe OMe	ОН	H	H	н снаон	0	– CH2C≡CMe

Table 275

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1-1475 OH		1		_		,		_													
OMS H H H H P OMS OMS ON H H H H CHAOH ON OMS ON H H H H P CHAOH ON OMS H H H H H OMS OMS ON H H H H H OMS OMS ON H H H H H OMS OMS OMS H H H H H H OMS OMS OMS OMS H H H H H H OMS	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH2)2CH=CMe2	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	$-(CH_2)_2CH=CMe_2$	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	– CH2C≡CMe	-CH2C6H4-4-Me	$-CH_2CH=CMe_2$	-(CH2)2CH = CMe2	-CH2CH=CCl2	- CH2C≡CMe	-CH°C.H1-M°
OMS H H H H OMS OMS OMS OH H H H H H OMS OMS OMS OH H H H H H OMS OMS OMS OH H H H H H OMS OMS OMS OMS OMS OH H H H H H OMS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OMS H H H H OMS OMS ON H H H H OMS OMS OMS OH H H H H OMS OMS OMS H H H H H OMS OMS OH H H H H OMS OMS OMS OH H H H H OMS OMS OMS H H H H H OMS OMS OH H H H H OMS OMS OMS H H H H H OMS OMS OMS H H H H H OMS OMS OH H H H OMS OMS OMS H H H H H OMS OMS OMS OMS H H H H H H OMS OMS OMS OH H H H OMS OMS OMS OMS H H H H H H OMS OMS OMS OH H H H H OMS	СН2ОН	면	Œ	伍	H	ᅜ	НО	НО	но	но	ЮН	ОМв	ОМв	OMs	OMs	ОМв	соон	соон	СООН	соон	HOOD
OMS H H H F OMS OMS OMS H H H H OMS OMS OMS H H H H H H OMS OMS OMS H H H H H H H OMS OMS OMS OMS H H H H H H OMS OMS OMS OMS H H H H H H OMS OMS OMS OMS H H H H H H H OMS OMS OMS OMS H H H H H H H OMS OMS OMS OMS H H H H H H H OMS OMS OMS OMS H H H H H H H OMS OMS OMS OMS H H H H H H H OMS OMS OMS OMS OMS H H H H H H H OMS	H	H	Ħ	H	H	H	H	Ħ	H	Н	H	H	H	H	Н	H	Н	H	Н	Н	7
OH H H H F OME OME OH OH H H H F OME OME OH OH OH H H H F OME OME OH OH OH H H H F OME OME OH OH OH H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H OME OME OH OMS H H H H H H OME OME OH OMS H H H H H H OME OME OH OMS OMS OME OH OMS H H H H H H OME OME OH OMS OMS OME OH OMS OMS OME OH OMS H H H H H OME OME OH OMS OMS OME OH OMS H H H H H OME OME OH OMS OMS OMS OME OH OMS OMS OMS OMS OMS OMS OMS OMS	E	н	H	Ħ	Н	H	Н	Ξ	H	Н	Н	H	H	Н	H	H	Н	H	H	Н	Н
OH H H H F OMe OME OH H H H F OME OME OH H H H H F OME OME OH H H H H F OME OME OMS H H H H H H OME OME OMS H H H H H H OME OME OMS H H H H H H OME OME OMS H H H H H H OME OME OMS OMS OMS OME OMS H H H H H H OME OME OMS OMS OMS OMS OMS OMS	Ξ	Н	Ξ	Н	H	Η	Н	Η	Н	Н	H	H	Ξ	H	H	н	Н	Ħ	Н	н	Ħ
OMS H H H H H OME	НО	но	НО	ЮН	НО	но	НО	НО	НО	НО	НО	ОН	ОН	ЮН	НО	ОН	ОН	НО	НО .	ОН	НО
OH H H H F OME OH H H H F OME OH H H H H F OME OHS H H H H H OME OMS H H H H H OME					OMe	ОМе	ОМе	OMe	ОМе	ОМе	ОМе		OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe
OMS H H H H H H H H H H H H H H H H H H H	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	
OMS H H H H H H OMS OMS H H H H H H H H H H H H H H H H H H H	5	<u>-</u>	Œ.	~	-	~	H	Ξ	Ή	Ξ	H	Ξ	H	H	H	Ξ	H	王	H	Ή	Ή
OMS H H H H OMS OMS H H H H H OMS OMS H H H H H H H H H H H H H H H H H H H	H	Ξ	프	Ξ	Ξ	=	王	.≖	H	H	Н	H	H	H	H	Ξ	H	H	H	Ξ	, ±
H H HO B HO	Ξ	Ξ	프	Ξ	H	Ξ	H	=	Н	Н	Н	H	Н	H	H	H	H	H	H	H	Ξ
OM8 OM8 OM8 OM8 OM8 OM8 OM8 OM8	Ξ	Ξ	Ξ	=	Ξ	Ξ	Ξ	Ξ	H	H	Ħ	=	=	H	王	=	H	H	Ξ	Ξ	H
	프	=	표	=	Ξ	=	Ξ	Ξ	H	н	Ξ	Ξ	H	Ħ	H	Ξ	H	王	H	H	H
1.1476 1.1477 1.1481 1.1482 1.1484 1.1484 1.1485 1.1486 1.1486 1.1486 1.1489 1.1490 1.1491 1.1491 1.1491 1.1491	НО	OH	НО	OH	OH	ПО	OMs	OMs	OMs	OMs	ОМв	ОМв	OMs	ОМв	OMs	OMs	OMs	OMs	OMs	OMs	OMs
	1.1475	1-1476	1.1477	1.1478	1.1479	1.1480	1.1481	1.1482	1.1483	1.1484	1.1485	1.1486	1.1487	I.1488	1.1489	1.1490	I.1491	I-1492	I-1493	1.1494	I-1495

Table 276

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					[1	3	113	[3	2	7	אטיאט	c	- CH,CH=CMe,
1.1496	OMs	Ξ	Ŧ	=	=	=	Oivie	Owe	5		:	:			10 - 110 \ 110'
1.1497	OMs	Ξ	Н	=	=	=	OMe	OMe	E O	Ξ		Ŧ	CH2OH	9	-(CH3)2CH -CIME2
1.1498	OMs	=	Ξ	H	н	Ξ	ОМе	OMe	ОН	H	Ξ	Ξ	СН2ОН	0	-CH2CH=CCl2
1.1499	OMs	=	1:1	=	H	Ξ	OMe	ОМе	011	Н	Ξ	Ξ	СН2ОН	0	- CH ₂ C≡CMe
1.1500	OMs	Ξ	=	H	Ħ	=	ОМе	OMe	OH	Ξ	Ξ	Ξ	СН2ОН	0	-CH2CaH1-1-Me
1.1501	OMB	=	=	=	=	=	OMe	ОМе	OH	Η	=	픠	Ŀ	0	-CH2CH=CMe2
1.1502	OMs	Ξ	Ξ	H	H	Ξ	OMe	OMe	Ю	Н	Ξ	Ξ	Œ,	0	-(CH2)2CH=CMe2
1.1503	OMs	Ξ	Ξ	Ξ	Ξ	H	OMe	ОМе	НО	H	Ξ	王	ম	0	-CH2CH=CCl3
1.154	OMs	Ξ	Ξ	Ħ	н	Н	OMe	OMe	ОН	н	Ξ	三	Œ,	0	CH ₂ C≡CMe
1.1505	OMs	Ξ	Ξ	Ξ	H	н	ОМе	ОМе	ОН	Ξ	≖	三	ፔ	0	-CH2C6H4-4-Me
1.1506	OMs	H	H	H	Н	н	OMe	ОМе	СООН	Ξ	Ξ	王	ОН	0	-CH2CH=CMe2
1.1507	OMs	H	Н	Н	Н	Н	OMe	ОМе	СООН	포	Ξ	三	НО	0	-(CH ₂) ₂ CH=CMe ₂
1.1508	OMB	H	Ξ	H	Н	Н	OMe	OMe	СООН	H	Ξ	三	НО	0	-CH2CH=CCl2
1.1509	OMe	Ξ	Ξ	Ξ	H	Н	OMe	OMe	СООН	H	Ξ	Ξ	НО	0	CH2C≡CMe
1.1510	OMs	Ξ	=	=	H	Ш	OMe	ОМе	C0011	Ξ	Ξ	프	ОН	0	-CH2C6H4-4-Me
1.1511	OMs	Ξ	Ξ	Ŧ	Н	Н	OMe	OMe	СООН	프	크	프	OMs	0	-CH2CH=CMe2
1.1512	OMB	Ξ	Ξ	Ħ	Н	H	ОМе	ОМе	СООН	三	크	王	OMs	0	-(CH2)2CH=CMe2
1.1513	OMs	Ξ	표	Ħ	Н	Н	ОМе	ОМе	соон	Ξ	픠	Ξ	OMs	0	-CH2CH=CCl2
1.1514	OMs	Ξ	Ξ	Ξ	Н	Н	ОМе	OMe	соон	크	三	Ξ	OMs	0	-CH2C≡CMe
1-1515	OMs	田	王	Н	H	Н	ОМе	OMe	СООН	크	三	프	ОМв	0	-CH2C6H4-4-Me
I-1516	OMs	H	H	Н	Ή	H	OMe	ОМе	СООН	H	H	三	СООН	0	-CH2CH=CMe2

Table 277

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25			۵	П	64	Т	Γ	0				Ι	6	-				-		Γ.
-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	- CH₂C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH2)2CH=CMe2	- CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	$-(CH_2)_2CH = CMe_2$	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	$-(CH_2)_2CH = CMe_2$	"IOO=HO"HO-	340-0110
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
СООН	COOH	соон	соон	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	ম	뚀	뚀	F	F	ОН	ОН	ОН	ОН	OMs	OMs	3
Н	Н	Н	H	Н	Ξ	Н	Н	Н	H	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	=
Н	Н	Н	Н	Н	Ή	Ξ	H	Н	H	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	п
H	H	Ξ	Н	Н	Ξ	H	Ξ	Ξ	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	П
СООН	СООН	СООН	соон	соон	СООН	СООН	СООН	СООН	С00Н	СООН	СООН	СООН	СООН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	החייוט
OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	OMo
OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe	0Me	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe
≖	=	Ξ	Ξ	Ξ	=	Ξ	Ξ	H	H	H	H	Н	Ξ	Ξ	Ξ	H	H	H	Ή	7
H	Ξ	三	Ξ	Ξ	=	Ξ	Ξ	Ξ	프	H	H	Н	Н	Н	Ή	H	H	H	H	Ξ
	=		Ξ	Ξ	=	Ξ	프	Н	Ξ	Ħ	H	H	H	Н	H	H	H	H	H	Ξ
	=		푸	Ξ	=	=	크		Ξ	H	H	H	Н	H	Ξ	Ξ	Н	Ξ	Ξ	Ξ
Ξ	=	Ξ	Ξ	Ξ	=	티	Ξ	프	Ξ	Ξ	王	三	Ξ	Ξ	H	H	Н	Н	Н	Ξ
OMs	OMs	OMs	OMs	ОМв	OMs	OMs	OMs	OMs	OMs	OMs	OMs	ОМв	ОМв	OMs	ОМв	OMs	OMs	OMs	OMs	OMa
1.1517	1.1518	1-1519	I-1520	I-1521	1.1522	1.1523	I.1524	I-1525	1.1526	I-1527	I-1528	I-1529	1.1530	I-1531	I-1532	1-1633	I-1534	I.1535	I.1536	1.1537

Table 278

I-1538	OMs	=	Ξ	Ξ	H	=	OMe	OMe	CH2OH	H	H	Н	ОМв	0	-CH2CoH4-4-Me
1.1539	OMs	=	Ε	Ξ	Η	=	OMe	OMe	СИлОН	=	프	Ξ	соон	0	-CH2CH=CMe2
1.1540	OMs	Н	H	Н	Н	Η	ОМе	OMe	CII2OH	Ξ	프	Ξ	СООН	0	-(CH ₂) ₂ CH=CMe ₂
1.1541	OMs	н	11	Н	н	н	ОМе	ОМе	СН2ОН	Ξ	Ξ	프	соон	0	-CH2CH=CCl2
1.1542	OMs	Н	Н	Н	Н	Н	ОМе	OMe	CH2OH	Ξ	Ξ	Ξ	СООН	0	-CH2C≅CMe
1.1543	OMs	11		11	11	Ξ	ОМе	OMe	CHZOH	=	=	Ξ	СООН	0	-CH2C6H4-4-Me
I-1544	OMs	н	Н	Н	Н	H	OMe	OMe	СН2ОН	H	Ξ	Ξ	СН2ОН	0	$-(CH_2)_2CH=CMe_2$
I-1545	OMs	H	Н	Н	Н	Н	ОМе	OMe	СН2ОН	Н	Ξ	Ξ	СН2ОН	0	CH2CH=CCl2
I.1546	OMs	Н	Н	Н	Н	Н	ОМе	OMe	СН2ОН	Н	Ŧ	표	СН2ОН	0	– CH₂C≅CMe
1.1547	OMs	Н	Н	Н	Н	H	ОМе	ОМе	СН20Н	Ξ	Ξ	Ξ	СН2ОН	0	-CH ₂ C ₆ H ₄ -4-Me
I.1548	OMs	Н	Н	Н	Н	Н	ОМе	OMe	СН2ОН	Н	Ξ	H	Œ	0	-CH2CH=CMe2
1-1549	OMs	Н	Н	H	Н	Ħ	OMe	OMe	СН2ОН	Η	Ξ	H	Œ,	0	$-(CH_2)_2CH=CMe_2$
1.1550	OMs	Н	Н	Н	H	Ξ	OMe	OMe	CH ₂ OH	Н	Ξ	Н	F	0	-CH2CH=CCl2
1-1551	OMs	Н	Н	Н	Н	H	OMe	ОМе	СН2ОН	Н	¥	н	ᅜ	0	-CH2C≡CMe
I-1552	OMs	Н	Н	Н	н	H	OMe	OMe	СН2ОН	H	Ή	Н	Œ	0	-CH2C6H4-4-Me
1.1553	OMs	н	Н	Н	Н	H	OMe	OMe	Me	H	Ξ	Ξ	НО	0	-CH2CH=CMe2
1.1554	OMs	Н	Н	Н	н	Ħ	OMe	ОМе	Me	Ξ	H	H	ЮН	0	-(CH2)2CH=CMe2
I-1555	OMB	Н	Н	Н	Н	Н	OMe	OMe	Me	H	Ħ	Н	НО	0	-CH2CH=CCl2
I-1556	OMs	Н	Н	Н	Н	Н	OMe	OMe	Me	Ξ	Ξ	н	НО	0	-CH2C≡CMe
1.1657	OMs	н	н	Н	H	Н	OMe	OMe	Me	H	Ξ	Ξ	НО	0	-CH2C6H4-4-Me
1.1558	OMs	Н	Н	Н	H	Ή	ОМе	ОМе	Me	Ħ	王	H	OMs	0	-CH2CH=CMe2

Table 279

1.1559	OMs	=	E		Ξ	Ξ	OMe	OMe	Mo	=	=	=	OMe	_	יייייייייייייייייייייייייייייייייייייי
1.1560	OMs	=	Ξ	=	Ξ	Ξ	OMe	OMe	ğ		=	=	OMs	0	—CH°C≡CMe
1.1561	OMs	=	Ξ	=	П	11	OMe	OMe	Me	Ξ	Ξ	Ξ	COOII	0	-CH2CH=CMe2
1.1562	OMs	Ξ	=	Ξ	Н	н	OMe	OMe	Me	Ξ	Ħ	H	СООН	0	- (CH ₂) ₂ CH = CMe ₂
I-1563	ОМв	=	Ξ	H	Н	Н	OMe	ОМе	Me	=	Ξ	H	СООН	0	-CH2CH=CCl2
1.1564	OMB	Ξ	=	Ξ	Ξ	Ξ	OMe	OMe	Me	Ξ	н	H	СООН	0	-CH2C≡CMe
1.1565	OMs	Ξ	=	Ξ	Η	Ξ	ОМе	ОМе	Me	Н	н	Н	Н000	0	-CH2C6H4-4-Me
I-1566	OMs	포	Н	Ξ	H	Н	ОМе	ОМе	Me	Н	Н	Н	СН2ОН	0	-CH2CH=CMe2
1.1567	OMs	Ξ	Н	Н	H	H	ОМе	ОМе	Me	Н	Н	Н	СН2ОН	0	- (CH ₂) ₂ CH = CMe ₂
1.1568	OMs	Ŧ	H	H	Ξ	H	ОМе	OMe	Me	Н	Н	Н	СН2ОН	0	- CH2CH = CCl2
1.1569	OMs	Ξ	Ξ	Н	Ξ	Ξ	OMe	ОМе	Me	H	Н	Н	Н07НЭ	0	-CH2C≡CMe
1.1570	OMs	H	H	Н	Н	Н	OMe	OMe	Me	Н	Н	Н	СН2ОН	0	-CH2C6H4-4-Me
1.1571	OMs	H	H	Н	Н	H	ОМе	ОМе	Me	Н	Н	Н	Ē	0	-CH2CH=CMe2
1.1572	OMs	Ξ	=	Ξ	Ξ	=	OMe	OMe	Me	Н	Н	Н	F	0	$-(CH_2)_2CH = CMe_2$
1.1573	OMs	H	Η	H	Ξ	王	ОМе	ОМе	Me	Н	Н	Н	F	0	-CH2CH=CCl2
1.1574	ОМв	H	Н	H	H	H	OMe	OMe	Me	Н	Н	Н	Œ	0	-CH2C≡CMe
I-1575	OMs	H	H	H	H	H	OMe	OMe	Me	Н	Н	Н	Œ,	0	-CH2C6H4-4-Me
1.1576	OMs	H	H	H	H	Ξ	OMe	OMe	Н	Н	Н	Н	НО	0	-CH2CH=CMe2
1.1577	OMs	Ξ	H	H	H	H	OMe	OMe	Н	Н	Н	Н	НО	0	$-(CH_2)_2CH = CMe_2$
1.1578	OMs	H	Ξ	H	H	H	OMe	OMe	Н	Н	Н	Н	НО	0	-CH2CH=CCl2
I-1579	OMs	H	Ξ	Ξ	/ H	H	OMe	OMe	H	H	Н	н	HO	c	- CH ₂ C≡CM ₂

Table 280

1.1580	OMs	Ξ	Ξ	H	王	=	OMe	OMe	Н	H	Н	H	HO	0	-CH2C6H4-4-Me
1.1581	OMs	11	П	Н	Н	H	ОМе	OMe	Н	H	H	H	ОМв	0	-CH2CH=CCl2
1.1582	OMs	H	11	Н	н	Ξ	OMe	OMe	Ξ	H	Н	H	ОМв	0	CH₂C≡CMe
1.1583	OMs	Н	H	Н	H	H	ОМе	OMe	Ħ	H	Н	Ξ	СООН	0	-CH2CH=CMe2
1.1584	OMs	H	H	Н	Н	11	ОМе	ОМе	Н	Ξ	Н	Ή	соон	0	-(CH2)2CH = CMe2
1.1585	OMs	II	11	н	11	=	OMe	OMe	=	П	П	Ξ	СООН	0	-CH2CH=CCI2
1.1586	OMs	н	Н	Ĥ	Ξ	Ξ	OMe	OMe	H	13	Н	Ξ	нооэ	0	−CH2C≡CMe
1.1587	OMs	Н	H	Н	Н	Н	ОМе	ОМе	Н	Н	H	H	нооэ	0	-CH2C6H4-4-Me
1.1588	OMs	Н	Н	Н	Н	Н	OMe	ОМе	H	Н	Н	Η	СН2ОН	0	-CH2CH=CMe2
1-1589	OMs	Н	11	н	Н	H	ОМе	ОМе	H	Н	Н	Н	СН2ОН	0	-(CH2)2CH = CMe2
1.1590	OMs	Н	Н	Н	Н	Н	OMe	OMe	H	Н	Н	H	СН2ОН	0	-CH2CH=CCl2
I-1591	OMs	Н	Н	Н	н	H	OMe	ОМе	Н	Н	Н	H	СН2ОН	0	CH2C≡CMe
1.1592	ОМв	Н	Н	Н	н	Ξ	OMe	OMe	H	Н	Н	H	СН2ОН	0	-CH2C6H4-4-Me
1-1593	ОМв	=	=	11	Ξ	=	OMe	OMe	Н	Ξ	H	Ξ	Œ	0	-(CH2)2CH=CMe2
1.1594	OMs	Н	Н	Н	H	H	OMe	OMe	Н	Η	Н	Ή	Œ	0	-CH2CH=CCl2
1.1595	ОМв	H	Н	Н	H	H	OMe	ОМе	Н	Ξ	н	Ħ	Œ,	0	−CH2C≡CMe
1.1596	OMs	Н	Н	H	H	Œ,	OMe	OMe	НО	Н	H	Ξ	ЮН	0	-CH2CH=CMe2
1.1597	OMs	H	П	Н	Ξ	<u>-</u>	OMe	OMe	НО	Ξ	Ξ	H	НО	0	-(CH2)2CH = CM62
1.1598	OMs	Н	H	H	Ξ	Œ,	OMe	OMe	НО	H	H	H	ОН	0	-CH2CH=CCl2
I-1599	OMs	Н	Н	Н	H	ഥ	OMe	OMe	НО	H	H	Ξ	ОН	0	-CH2C≡CMe
1.1600	OMs	Н	Н	Н	н	GE.	ОМе	OMe	ОН	H	H	H	ОН	0	-CH2C6H4-4-Me

Table 281

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		_	τ	_	_		_		,											
-CH,CH=CMe.	-(CH2)2CH=CMe3	-CH2CH=CC!	-CH ₂ C≡CM _B	-CH2CaH2-4-MP	-CH ₂ CH=CMe ₃	-(CH2)2CH=CMe2	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH,CH=CMe,	-(CH ₂) ₂ CH=CM ₂ .	-CH ₂ CH=CCl ₂	-CH ₂ C≡CM ₆	-CH2CaH4-4-Ma	- CH ₂ CH = CCl ₂
0	0	0	0	0		0	0	0	0	0	0	0	0	0	c	0	0	0	0	0
OMs	OMs	OMe	OMs	OMs	COOH	СООН	СООН	нооэ	1000	CH ₂ OH	СН2ОН	СН2ОН	CH ₂ OH	СН2ОН	ÇE.	Œ	. [2	Œ	Œ	НО
H	Ξ	Ξ	Ξ	Ξ	Ξ	Ħ	Н	H	Н	Н	Н	Н	H	H	H	Ξ	=	H	H	H
E	프	Ξ	Ξ	Ξ	=	H	H	Н	Н	Н	Н	Н	Н	Н	H	Ξ	=	H	H	H
=	Ξ	=	Ξ	Ξ	Ξ	Н	Н	H	Н	Н	Н	Н	Н	Н	H	Ξ	Ξ	Ξ	Ξ	H
HO	HO	но	но	НО	IIO	ОН	НО	ОН	ОН	ОН	ОН	ОН	ОН	ОН	НО	НО	НО	НО	НО	НО
OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	OMe	ОМе	ОМе
OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	OMe	ОМе	ОМе	OMe	ОМе	ОМе	ОМе
-	-	~	<u>-</u>	<u>-</u>	~	<u></u>	2	5-	<u>-</u>	됴	-	-	Œ	Ŀ	स	Ŀ	건	[±,	Ŀ	H
Ξ	=	Ξ	Ξ	=	=	Ξ	Ξ	H	H	H	=	Ξ	H	H	Ξ	Н	Н	H	Ξ	H
Ξ	=	=	=	=	=	=	Ξ	=	H	H	=	Ξ	Ξ	H	H	Н	Н	Ή	Ή	H
	=	Ξ	=	Ξ	=	Ξ	=	=	Ξ	=	=	=	王	프	Ξ	Н	Н	Ξ	Ξ	H
		=		Ξ	=	Ξ	王	Ξ	Ξ	Ξ	=	Ξ	Ξ	H	H	H	H	田	H	H
OMs	OMs	OMs	ОМв	OMs	ОМя	OMs	OMs	OMs	OMs	OMs	OMs	OMs	OMs	OMs	OMs	OMs	OMs	ОМв	ОМв	E
1.1601	1.1602	I-1603	1.1604	I.1605	1.1606	1.1607	1.1608	1.1609	1.1610	1.1611	1.1612	1-1613	1.1614	I-1615	I-1616	1.1617	I-1618	1.1619	1.1620	1.1621

Table 282

. 35

– CH2C≡CMe	-CH2CH=CCl2	-CH ₂ C≡CMe	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCh	-CH2C≡CMe	-CH2C8H4-4-Me	-CH2CH=CMe2	-(CH2)2CH=CMe2	-CH2CH=CCl2	-CH ₂ C≡CMe	-CH2C6H4-4-Me	-CH2CH=CCl2	– CH₂C≅CMe	- CH2CH=CCl2	-CH2C≡CMe	-CH2CH=CMe2	- (CH2)2CH=CMe2	-CH2CH=CCl2	-CH2C≡CMe
0	0	0	0	0	٥	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
НО	ОМв	OMs	соон	СООН	C0011	СООН	СООН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	Ŀ	F	ОН	НО	ОМв	ОМв	ОМв	ОМв
H	Н	Н	H	Ξ	=	Ξ	H	Н	H	H	H	H	H	H	H	H	Ή	H	H	H
H	H	H	H	=	=	Ξ	Н	Н	H	H	H	Н	H	H	H	Н	H	H	H	H
Ξ	H	H	Ξ	=	=	Ξ	H	Η	Н	H	Ξ	H	Н	H	H	Ή	Ή	Ħ	Ξ	Н
НО	110	ОН	ОН	HO	011	ОН	ОН	OH	ОН	ОН	ОН	ОН	ЮН	ОН	соон	СООН	СООН	соон	соон	соон
OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	OMe	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	ОМе
OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	OMe
Ξ	11	II	Н	=	=	Н	Н	11	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	H
Н	11	Н	Н	=	П	Н	Н	11	Н	Н	н	Н	Н	Н	Н	Н	Н	Н	Н	H
Н	=	Н	Н	Ξ	11	Н	Н	Η	Н	Н	H	Н	Н	H	Н	Н	Н	Н	H	H
H	Ξ	H	Н	11	=	Н	Н	=	H	Н	H	н	Н	Н	Н	Н	Н	Н	Н	Н
Ξ	H	Н	Н	11	=	Н	Н	=	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
<u>-</u>	F.	F	F	ત	4	મ	P	F	Ē	R	P	F	F	ű	Ŗ	F	P	F	F	F
1.1622	1-1623	1.1624	1-1625	1.1626	1.1627	1.1628	1.1629	1.1630	1.1631	I.1632	1.1633	1.1634	1.1635	1.1636	1.1637	1.1638	1.1639	1-1640	1.1641	I-1642

Table 283

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I-1643	સ	=	Ξ	Н	Н	Ξ	OMe	ОМе	СООН	Ξ	포	н	OMs	0	-CH2C6H4-4-M
1.1644	i.	Ξ	Ξ	Ξ	Ξ	Ξ	ОМе	OMe	COOH	H	H	Н	соон	0	-CH2CH=CMe2
1.1645	હ	н	Н	Н	Н	Н	OMe	ОМе	соон	Н	Н	Н	соон	0	-(CH2)2CH = CM6
1-1646	હ	H	Н	Н	н	Н	ОМе	ОМе	соон	Н	Н	H	соон	0	- CH2CH=CCl2
1-1647	ય	Η	Ш	Н	Н	H	ОМе	ОМе	СООН	Н	Н	н	СООН	0	– CH₂C≡CMe
1-1648	~	=	=	==	=	П	ОМе	ОМе	COOII	Н	Н	Н	СООН	0	-CH2C6H4-4-M
1.1649	Ċ.	프	Н	H	H	Н	OMe	OMe	НООО	H	Н	H	СН2ОН	0	-CH2CH=CMe2
1-1650	<u>-</u>	Н	Ξ	Н	Н	Н	ОМе	ОМе	соон	Н	Н	Н	СН2ОН	0	-(CH2)2CH = CMe
1.1651	ᄕ	Н	H	H	Ή	Н	OMe	ОМе	соон	Н	H	Н	СН2ОН	0	-CH2CH=CCl2
1.1652	ų	H	Ξ	Η	Н	Н	ОМе	ОМе	соон	H	Н	H	СН2ОН	0	−CH ₂ C≡CMe
I-1653	ū	Н	Ξ	H	Н	Н	OMe	OMe	соон	Н	Н	Н	СН2ОН	0	-CH2C6H4-4-M
1.1654	Ŗ	11	Н	Н	Н	Н	OMe	OMe	СООН	Н	Н	Н	Ħ	0	$-CH_2CH = CCl_2$
1.1655	ન	н	Ξ	Н	Н	Н	ОМе	ОМе	соон	Н	Н	H	ম	0	– CH2C≡CMe
J.1656	Ŀ	Н	Ή	Н	Н	Н	ОМе	ОМе	СН2ОН	H	Н	H	ОН	0	- CH2CH=CMe2
1.1657	ম	Ξ	н	H	Н	Н	ОМе	OMe	СН2ОН	Н	Н	H	ОН	0	$-(CH_2)_2CH=CMe$
I-1658	Ŧ	H	Н	H	H	H	OMe	OMe	СН2ОН	H	Н	H	НО	0	-CH2CH=CCl2
1-1659	<u>۲</u>	Н	H	Н	H	Н	ОМе	ОМе	СН2ОН	H	Н	Н	ОН	0	– CH₂C≡CMe
1-1660	দ	Н	Н	H	H	Н	ОМе	ОМе	СН2ОН	H	Н	Н	ОН	0	-CH2C6H4-4-M
1.1661	F	Н	Н	н	H	H	ОМе	ОМе	СН2ОН	Н	H	Н	OMs	0	- CH2CH=CMe2
I-1662	뚄	Н	Н	H	H	H	ОМе	OMe	СН2ОН	H	H	田	ОМв	0	$-(CH_2)_2CH = CMe$
1.1663	Œ	Н	H	Ħ	′ ±	H	OMe	OMe	OMe OMe CH2OH	Ξ	Ξ	Ή	OMa	С	-CH,CH=CCI,

Table 284

1-1664	1				Ξ	=	OMe		OMe CH ₂ OH	=	포	H	OMs	0	-CII2C≡CMe
1.1665	٤	Ξ	=	Ξ	Ξ	Ξ	OMe	OMe	СН2ОН	=	Ξ	Н	ОМв	0	-CH ₂ C ₆ H ₄ -4-Me
1.1666	Έ	=	Ξ	=	Ξ	=	OMe	ОМе	СПлОН	Ξ	Ξ	Н	СООН	0	-CH2CH=CMe2
1.1667	સ	Ξ	II.	=	Н	Н	OMe	OMe	СН2ОН	Ξ	Ξ	Н	соон	0	- (CH ₂) ₂ CH=CMe ₂
1.1668	Ŀ	Ξ	Ξ	Ξ	Ξ	Ξ	OMe	OMe	СПЛОН	Ш	H	H	нооэ	0	CH ₂ CH = CCh ₂
1.1669	۳.	Ξ	=	=	Ξ	=	OMe	OMe	СПОН	н	H	Н	соон	0	- CH2C≡CMe
1.1670	뜨	Ξ	Ξ	Н	Н	Ξ	OMe	OMe	СН2ОН	Н	Н	Н	COOH	0	-CH ₂ C ₆ H ₄ -4-Me
1.1671	Œ	н	H	H	H	Н	ОМе	OMe	СН2ОН	Н	Н	Н	СН2ОН	0	-CH2CH=CMe2
1.1672	Œ,	Н	Ξ	Н	H	H	OMe	OMe	СН2ОН	Н	Н	Н	СН2ОН	0	$-(CH_2)_2CH = CMe_2$
1.1673	٢	Н	Ή	H	Н	H	ОМе	ОМе	СН2ОН	H	Н	Н	CH2OH	0	-CH2CH=CC12
1.1674	Œ	Ξ	H	Н	H	Н	ОМе	OMe	СН2ОН	Н	Н	Н	СН2ОН	0	CH2C≡CMe
1.1675	Ŀ	Ξ	Ή	Н	H	Н	ОМе	ОМе	СП2ОН	Н	Н	н	СН2ОН	σ	-CH2C6H4-4-Me
1.1676	ા	Ξ	Ή	Н	Н	Ξ	ОМе	OMe	СН2ОН	H	Н	Н	Į.	0	-CH2CH=CMe2
1-1677	દા	Н	Н	Н	Н	H	OMe	OMe	СН2ОН	н	Н	Н	Œ.	0	-(CH2)2CH=CMe2
I-1678	Œ	Н	Н	Н	Н	Н	ОМе	ОМе	СН2ОН	Η	H	Н	F	0	-CH ₂ CH=CCl ₂
1.1679	સ	Ξ	Ξ	H	H	Ξ	OMe	ОМе	СН2ОН	H	H	Н	F	0	- CH2C≡CMe
I-1680	£.,	H	H	н	Н	Ξ	OMe	OMe	СН2ОН	Н	H	H	स	0	-CH2C6H4-4-Me
I-1681	F	H	Ξ	Ξ	H	H	OMe	ОМе	Me	Ξ	H	Ξ	ЮН	0	-CH2CH=CMe2
1.1682	£	Ξ	H	H	H	Ή	OMe	ОМе	Me	H	H	Ξ	НО	0	$-(CH_2)_2CH=CMe_2$
I-1683	ા	=	Ξ	Н	H	H	ОМе	OMe	Me	Ξ	н	H	ОН	0	- CH2CH=CCl2
I.1684	Œ	н	H	H	·H	H	OMe	OMe	Me	Ξ	Ξ	王	НО	0	−CH2C≡CMe

Table 285

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4 - Mo	C Ma	-CMp.	ز	¥ 2	4 - Ma	CMe.	:CMe2	CCI	Μe	1 – Me	;Me	CMe ₂	Cl3	Me	I Me	Me,	CMe,	į	Me	
-CH°C°H'4-Me	-CH ₂ CH=CM ₆ ,	-(CH3),CH=CMe,	-CH ₂ CH=CCI ₈	—CH°C≡CM•	-CH2CaH4-4-Ma	-CH ₂ CH=CMe ₃	- (CH2)2CH = CMe2	- CH2CH = CCl2	- CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl3	- CH2C≡CMe	-CH2C6H4-4-MP	-CH,CH=CMe,	- (CH2)2CH = CMe2	-CH2CH=CCl2	- CH2C≡CMe	
C	0	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HO	OMs	OMs	OMa	OMe	OMB	СООН	соон	НООО	СООН	СООН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	ȱ.	E4	Ŀ,	Ę,	
Ξ	=	Ξ	H	Ξ	H	H	Н	Н	Н	Н	Н	Н	н	Н	H	Ħ	E	H	Н	l
	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Н	Н	Н	H	H	Н	Н	Н	H	H	Ξ	H	Н	
Ξ	=	Ξ	Ξ	<u> </u> ≡	Ξ	Ħ	H	Н	Н	H	Н	Н	Н	Н	Н	Ξ	H	Н	Н	
Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Ме	Me	Me	Me	Me	Me	
OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	ОМе	OMe	OMe	OMe	ОМе	ОМе	-
OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	ОМе	OMe	OMe	OMe	OMe	,
=	Н	H	H	Н	11	==	Ξ	Ξ	Ξ	н	Ξ	=	H	Ξ	Н	Н	Н	H	H	-;
Ξ	Н	Η	Н	Н	Н	H	H	Ξ	H	H	Ξ	н	Ξ	Н	H	Н	H	H	H	, :
H	н	Н	Н	Н	н	Ξ	H	=	Ξ	Ξ	H	Ξ	=	H	н	н	H	H	H	:
II	Н	П	Ή	H	=	Ξ	Η	=	=	H	=	=	=	Ξ	H	Н	=	H	표	-
三	Ξ	=	H	Ξ	Ξ	H	Ξ	Ξ	H	Ξ	Ξ	Ξ	Ξ	Ħ	Ξ	H	Ŧ	H	H	-
C±.	드	4	<u> </u>	ন	٤	5	F	स	લ	C.	Œ.	P	Ŀ	F	¥	Œ	Œ	Œ,	Ç.	£.
1-1685	1.1686	1.1687	1.1688	I-1689	1.1690	1.1691	I-1692	1.1693	1.1694	I-1695	1.1696	1.1697	1.1698	I-1699	I.1700	1.1701	1.1702	I-1703	I-1704	1,1705

Table 286

I.1706	૯			Ξ	Ξ	Н	OMe	OMe	Ξ	=	Ξ	Ξ	ОН	0	-CH2CH=CMe2
1-1707	F	=	=	Ξ	Ξ	H	OMe	OMe	H	Ξ	Ξ	Н	ОН	0	-(CH2)2CH=CMe2
1.1708	દ	Ξ	Ξ	Ξ	H	H	ОМе	OMe	Н	Ξ	н	Н	ОН	0	-CH2CH=CCl2
1.1709	F	Ξ	프	Ξ	H	Ξ	ОМе	OMe	Н	H	Η	Н	ЮН	0	-CH ₂ C≡CMe
1.1710	હ	Ξ	=	=	Н	Ξ	OMe	ОМе	=	Ξ	=	Н	но	0	-CH2CaH4-4-Me
1.1711	4	H	Ξ	Ħ	H	H	OMe	OMe	Н	H	Н	Н	ОМв	0	-(CH2)2CH=CMe2
1.1712	-	=	Ξ	H	Ξ	=	OMe	OMe	H	H	Н	Н	оМв	0	- CH2CH=CCl2
1.1713	٢	Ξ	Ξ	Н	Н	Н	OMe	ОМе	Н	Н	Н	Н	OMe	0	- CH₂C≡CMe
1.1714	4	H	H	Н	Н	Н	ОМе	OMe	H	H	Н	Н	ОМв	0	-CH2C6H4-4-Me
1.1715	ت	H	Н	Н	Н	Н	OMe	ОМе	н	Н	Н	Н	СООН	0	-CH ₂ CH=CMe ₂
I.1716	Œ	H	Н	Н	H	Н	OMe	OMe	н	Н	Н	Н	СООН	0	-(CH2)2CH=CMe2
1.1717	2	=	=	Ξ	=	=	OMo	OMo	=	Ξ	н	Н	соон	0	- CII2CII = CCl2
1.1718	3	Ξ	Ξ	Ξ	H	н	ОМе	ОМе	н	Н	Н	H	соон	0	- CH2C≡CMe
I.1719	Œ	Н	Ξ	Н	Н	Ή	OMe	ОМе	Н	Н	Н	Н	СООН	0	-CH2C6H4-4-Me
I-1720	뜨	Ξ	=	Н	Ξ	Ή	ОМе	ОМе	H	н	н	Н	СН2ОН	0	-CH2CH=CMe2
1.1721	£	Ξ	=	Ξ	=	=	OMe	OMe	=	Ξ	н	Н	СН2ОН	0	-(CH2)2CH = CMe2
1.1722	Œ	H	Н	Ξ	H	H	OMe	ОМе	Н	Н	Н	Н	СН2ОН	0	- CH ₂ CH=CCl ₂
I.1723	뜨	Ξ	н	Ξ	H	H	OMe	ОМе	Н	Н	H	Н	СН2ОН	0	- CH2C≡CMe
1.1724	뇬	Ξ	Н	Ξ	Ξ	Ξ	ОМе	ОМе	H	Н	H	Н	СН2ОН	0	-CH2C6H4-4-Me
1.1725	দ	Ξ	H	H	Ξ	Н	OMe	OMe	H	Ξ	Н	H	Ŧ.	0	-CH2CH=CMe2
I-1726	ÇĖ,	Н	H	Н	H	H	ОМе	OMe	Н	H	Н	H	দ	0	-(CH ₂) ₂ CH=CMe ₂

Table 287

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1.1727 F H H H H OME OME H H H F F O CCH3CH=CCIR 1.1728 F H H H H OME OME H H H F O CCH3CH=CME-CME-CME-CME-CME-CME-CME-CME-CME-CME-						_		_		_											
	-CH ₂ CH=CCl ₂	-CH₂C≡CMe	-CH2C6H4-4-Me	-(CH2)2CH=CMe2	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH2)2CH = CMe2	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	- CH ₂ CH = CMe ₂	$-(CH_2)_2CH=CMe_2$	-CH2CH=CCl	– CH2C≡CMe	-CH2C6H4-4-Me	$-CH_2CH=CMe_2$	$-(CH_2)_2CH = CMe_2$	-CH2CH=CCl2	- CH2C≡CMe
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F	拓	H	ų	ОН	НО	011	ОН	OMs	ОМв	OMs	OMs	OMs	соон	соон	нооэ	СООН	соон	CH ₂ OH	СН2ОН	СН2ОН	СН-ОН
F	프	Ξ	Ξ	Ξ	H	H	Н	Ξ	Ξ	H	H	Н	Н	Н	Н	Н	H	H	Н	Н	Н
F	프	Ξ	Ξ	Ξ	Н	=	H	Ή	H	Ħ	H	Н	Н	H	Н	Н	Н	Н	Н	Н	Н
F H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	Ξ	Ξ	=	Ξ	Ξ	=	표	Ξ	H	Н	Н	Н	Н	H	Н	Н	H	Н	H	H	Н
F II H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	Н	Ξ	=	011	ЮН	OH	HO	ЮН	НО	НО	ЮН	НО	НО	ЮН	НО	ЮН	ОН	ОН	ОН	ОН	НО
F H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H		_	OMe			_	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	ОМе	OMe	OMe	OMe	OMe
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ОМе	OMe	ОМе	OMe	ОМе	OMe	ОМе	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	ОМе	
	王	크	Ξ	=	드	=	Œ,	<u></u>	æ	드	<u>-</u>	Ŀ	Œ,	<u>-</u>	ഥ	F	E	ſĿ,	ſĿ,	<u></u>	G±,
	Ξ	Ξ	=	=	=	=	H	Ξ	Н	H	Н	Н	H	Ξ	표	Ή	표	Ξ	Ξ	H	/ H
	Ξ	Ξ	Ξ	=	=	=	Ξ	H	Ξ	H	Н	H	Н	Ξ	H	н	Ħ	H	н	Ξ	Ξ
	Ξ	Ξ	Ξ	=	=	=	포	H	H	H	H	Η	Ξ	Ξ	H	Ξ	王	Ξ	H	н	H
	=	Ξ	=	=	=	=	王	Ξ	H	Ξ	Н	H	Η	Ξ	Ξ	Ξ	H	E	王	H	Ξ
1.1727 1.1729 1.1739 1.1734 1.1734 1.1735 1.1736 1.1736 1.1737 1.1739 1.1740 1.1741 1.1741 1.1741 1.1741 1.1741 1.1741 1.1741	£.	돈	૯	સ	5-	2	Œ	된	٢.	સ	드	હ	দ	હ	F	FI	Œ,	<u>.</u>	Ćī.	Œ	Ę
	1.1727	1.1728	1-1729	1-1730	1.1731	1-1732	I.1733	1.1734	1.1735	1.1736	I-1737	I-1738	1.1739	1.1740	I-1741	I-1742	1.1743	1.1744	1.1745	I-1746	I-1747

Table 288

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OMe OH	=	=	Ξ	CH2OH	0	-CH2C6H4-4-Me
ОМе ОН	Ξ	H	王	Œ	0	-CH2CH=CMe2
ОМе ОН	프	Ξ	H	ഥ	0	$-(CH_2)_2CH=CMe_2$
ОМе ОН	Ξ	Ξ	Ξ	Ľ	0	-CH2CH=CCl2
OMe OH	Ξ	Ξ	Ξ	Ŀ	0	- CH2C≡CMe
OMe OH	Ξ	Ξ	Ξ	ম	0	-CH2C6H4-4-Me
ОМе ОН	Ξ	Ξ	H	ЮН	0	-CH2CH=CMe2
ОМе ОН	Ξ	Ξ	Ή	ЮН	0	-(CH2)2CH=CMe2
ОМе ОН	H	Н	Н	ОН	0	-CH2CH=CCl2
OMe OH	н	Н	Н	ЮН	0	– CH2C≡CMe
ОМе ОН	Ξ	H	Н	ОН	0	-CH ₂ C ₆ H ₄ -4-Me
OMe OII	=	Ξ	=	ОМв	0	-CH2CH=CMe2
ОМе ОН	王	三	Ξ	ОМв	0	-(CH2)2CH=CMe2
ОМе ОН	H	Ξ	王	OMs	0	-CH2CH=CCl2
ОМе ОН	Ξ	Ξ	Ħ	OMs	0	−CH2C≡CMe
OMe OII	=	王	Ξ	OMs	0	-CH2C6H4-4-Me
ОМе ОН	Ξ	H	H	соон	0	-CH2CH=CMe2
ОМе ОН	田	H	H	СООН	0	-(CH2)2CH=CMe2
ОМе ОН	Ξ	H	H	СООН	0	-CH2CH=CCl2
ОМе ОН	H	포	王	соон	0	-CH2C≡CMe
ОМе ОН	H	H	H	Н000	0	-CH2C6H4-4-Me
	ЮН	H	н	НН	н н н	н н н соон

Table 289

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			_					_		,	,									
-CH2CH=CMe2	-(CH2)2CH=CMe2	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	- CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH2)2CH=CMe2	- CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	- (CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	CH₂C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	સ	ત્ર	स	A	A	но	НО	НО	ОН	НО	OMe	OMs	OMs	OMs	OMs	СООН
Н	H	H	H	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
Ξ	Ξ	Ξ	Н	H	Ξ	Н	Н	Н	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	н	Н
Ξ	H	=	H	H	=	Ħ	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
НО	ОН	011	ОН	но	011	OHI	ОН	НО	ОН	соон	СООН	соон	соон	соон	соон	соон	соон	соон	соон	H OMe OMe COOH
ОМе	OMe	OMe OMe	OMe	ОМе	OMe	Н ОМе ОМе	OMe	OMe	ОМе	OMe	ОМе	ОМе	OMe	OMe OMe	ОМе	OMe OMe	OMe	OMe	OMe	OMe
OMe	OMe	ОМе	OMe	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe
Ξ	=	=	Н	=	=	Ξ	Ξ	Ξ	Ξ	Ξ	=	Ξ	Ή	H	=	H	三	王	H	н
日	푀	Ξ	Η	Η	=	H	H	Н	Н	H	=	H	Ξ	H	Ξ	H	H	Ξ	Ή	H
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		=	Ξ		=	=	Ξ	Ħ	Ξ	Η	Ξ	H	H	Н	Ξ	Ξ	Ξ	Ξ	田	Н
且		Ξ	Ξ	٥	=	=	Ξ	Ξ	프	프	H	Ξ	Ξ	H	=	H	H	H	Н	Н
-001120-*	-001130-*	-OCH2O-*	-0cH20-*	-OCH20-*	*-Offfio-*	-OCH ₂ O-*	-OCH2O-*	-OCH2O-*	-OCH2O-*	-0CH20-*	+-0~HDO-	-0cH20-	-0CH20-*	-0CH20-	-OCH2O-*	-0CH2O-*	OCH2O-*	OCH2O-*	-OCH2O-*	-0cH20-*
1.1768	1.1769	1.1770	1.1771	1.1772	1-177:3	1-1774	I-1775	1-1776	1.1777	1.1778	1-1779	I-1780	I.1781	I-1782	1.1783	1.1784	1.1785	1.1786	1.1787	I-1788

Table 290

								i							
1.1789	+-05H2O-	=	=	*	=	=	ОМе	ОМе	соон	Ξ	Ξ	Ξ	нооэ	0	$-(CH_2)_2CH = CMe_2$
1.1790	+-0c1150-*	=	=	*	П	11	OMe	OMe	СООН	Н	H	Н	H000	0	- CH2CH=CCl2
I-1791	-0cH20-*	Ξ	Ξ	*	=	11	ОМе	OMe"	соон	H	Н	Н	СООП	0	- CH₂C≡CMe
1.1792	+-05H2O-	Ξ	H	*	Ξ	Ξ	ОМе	OMe	СООН	Н	Н	H	нооэ	0	-CH2C6H4-4-Me
1.1793	-0CH20-*	Ξ	Ξ	*	Ξ	Ξ	OMe	OMe	СООН	Н	H	Н	CH ₂ OH	0	- CH2CH=CMe2
1.1794	-021120-	=	Ξ	*	Ξ	=	ОМе	ОМе	СООН	Н	H	Н	НО⁵НЭ	0	$-(CH_2)_2CH = CMe_2$
1.1795	-0CH20-*	Ξ	Η	*	Ξ	Ξ	OMe	ОМе	соон	Н	Н	Н	CH ₂ OH	0	- CH ₂ CH=CCl ₂
1.1796	-0CH ₂ O-*	Ξ	H	*	王	Ŧ	ОМе	OMe	СООН	Н	Н	Н	СН2ОН	0	- CH2C≡CMe
1.1797	-0CH2O-*	프	Н	*	Ή	Н	OMe	OMe	соон	Н	Н	Н	CH ₂ OH	0	-CH2C6H4-4-Me
I-1798	-0cH20-*	H	Н	*	Н	Н	OMe	OMe	соон	Н	Н	Н	ξŦ	0	-CH2CH=CMe2
I-1799	+-02H2O-	포	Ξ	*	Н	Н	OMe	OMe	соон	Н	Н	Н	H	0	- (CH ₂) ₂ CH = CMe ₂
1.1800	-OCH ₂ O-*	Ξ	Ξ	*	Н	П	OMe	OMe	соон	=	Н	Н	F	0	- CH2CH=CCl2
1.1801	-0cH20-*	三	Ξ	*	Н	Н	OMe	OMe OMe	соон	Н	Н	Н	F	0	−CH2C≡CMe
1.1802	-0cH20-*	王	Ξ	*	Н	H	OMe	OMe	СООН	H	Н	Н	F	0	-CH2C6H4-4-Me
1.1803	-OCH3O-*	王	H	*	H	H	OMe	ОМе	СН2ОН	Ή	Ξ	H	НО	0	-CH2CH=CMe2
1.1804	-OCH20-*	Ξ	Ξ	*	H	H	OMe	OMe	OMe CH2OH	H	Н	Н	ОН	0	-(CH2)2CH=CMe2
I-1805	-OCH ₂ O-*	H	H	*	H	丰	ОМе	OMe	OMe CH2OH	H	Ή	H	ОН	0	-CH ₂ CH=CCl ₂
I-1806	-0CH ₂ O-*	Н	H	*	H	H	OMe	OMe	CH ₂ OH	Ξ	王	Ξ	ЮН	0	-CH2C≡CMe
1.1807	-OCH2O-*	Ξ	=	*	H	Ξ	OMe	OMe	СН2ОН	Ξ	三	Ξ	ЮН	0	-CH ₂ C ₆ H ₄ -4-Me
I-1808	-0CH ₂ O-*	Н	Ξ	*	H	H	OMe	OMe	ОМе СН2ОН	王	Ξ	Ξ	ОМв	0	-CH2CH=CMe2
I-1809	I.1809 -OCH2O- *	Н	н	*	H	H	ОМе	OMe	H OMe OMe CH2OH	H	H	Ħ	OMB	0	-(CH ₂) ₂ CH = CMe ₂

' Table 291

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i															
1.1810	* - O ₂ HOO-	Ξ	=	*	=	Н	OMe	-	OMe CH2OH	Ξ	Ξ	H	OMs	0	-CH2CH=CCl2
1.1811	+-05H2O-+	王	Ξ	*	=	=	OMe	ОМе	СП2ОН	H	Н	Н	OMs	0	-CH2C≡CMe
1.1812	+-0cH30-+	=	Ξ	*	H	Ξ	ОМе	OMe	СН2ОП	H	H	H	OMs	0	-CH2C6H4-4-Me
1.1813	-0CH20-*	王	Ξ	*	H	Н	OMe	OMe	СН2ОН	Н	Н	Н	соон	0	-CH2CH=CMe2
1.1814	+-0cH20-	Ξ	Ξ	*	H	Н	ОМе	OMe	СН2ОН	Н	H	H	СООН	0	- (CH ₂) ₂ CH=CMe ₂
1.1815	*-04H20-	=	Ξ	*	H	Η	OMe	OMe	СН2ОН	Н	Н	Н	СООН	0	-CH2CH=CCl2
1.1816	-0CH20-	Ξ	Н	*	Н	H	OMe	OMe	СН2ОН	Н	H	Н	СООН	0	-CH2C≡CMe
I-1817	-0CH20-*	三	Н	*	Н	Н	OMe	ОМе	СН2ОН	H	н	Н	соон	0	-CH2C6H4-4-Me
1-1818	-0CH20-*	픠	H	*	Н	H	ОМе	ОМе	СН2ОН	H	Н	Н	СН2ОН	0	-CH2CH=CMe2
1.1819	-0CH20-	三	Н	*	Н	Н	OMe	ОМе	СН2ОН	Н	Н	Н	СН2ОН	0	(CH2)2CH=CMe2
I-1820	-0CH ₂ O-*	Ξ	Н	*	Н	Н	OMe	OMe	СН2ОН	H	H	Н	СН2ОН	0	- CH2CH=CCl2
1.1821	-OCH2O-*	프	Ξ	*	н	H	ОМе	ОМе	СН2ОН	H	Ξ	H	СН2ОН	0	- CH ₂ C≡CMe
I-1822	-0cH20-*	Ξ	Ξ	*	Н	H	OMe	OMe	СН2ОН	H	Н	H	СН2ОН	0	-CH2C6H4-4-Me
1.1823	-0CH2O-*	H	Ξ	*	Н	H	ОМе	OMe	СН2ОН	H	H	H	F	0	- CH ₂ CH = CMe ₂
1.1824	-OCII20-*	Ξ	Ή	*	Н	Ξ	ОМе	ОМе	СН2ОН	H	H	H	R	0	$-(CH_2)_2CH=CMe_2$
1.1825	-OCH2O-*	Н	Н	*	H	H	ОМе	OMe	СН2ОН	프	H	Ξ	Ç4,	0	-CH2CH=CCI2
I-1826	-0cH20-*	H	H	*	H	H	OMe	OMe	СН2ОН	王	Ħ	Ξ	ᅜ	0	-CH ₂ C≡CMe
1.1827	-0cH20-*	Н	H	*	Ξ	Ξ	OMe	ОМе	СН2ОН	Ξ	H	H	দ	0	-CH2C6H4-4-Me
I-1828	OCH ₂ O-*	Н	H	*	H	Ή	OMe	OMe	Me	Ξ	H	Ξ	ЮН	0	-CH2CH=CMe2
I.1829	-0CH ₂ O-*	H	H	*	H	H	OMe	OMe	Me	Ξ	Ξ	Ξ	НО	0	-(CH ₂) ₂ CH=CMe ₂
1-1830	-0CH ₂ 0-*	H	Н	*	Ξ	H	OMe	ОМе	Me	H	H	H	НО	0	-CH2CH=CCl2

Table 292

CMe	-4-Me	-CMe2	=CMe2	=CCI2	CMe	-4-Me	:CMe2	=CMe2	=CCl2	CMe	-4-Me	CMe2	=CMe₂	CCl2	CMe	4-Me	CMe2	=CMe2	CCI2	
- CH₂C≡CMe	-CH2C6H4-4-Me	-CH ₂ CH=CMe ₂	-(CH2)2CH = CMe2	-CH2CH=CCI2	-CH2C≡CMe	-CH2C6H4-4-Me	$-CH_2CH = CMe_2$	-(CH2)2CH = CMe2	- CH2CH=CCl2	- CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH2)2CH = CMe2	- CH2CH=CCl2	- CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH2)2CH = CMe2	-CH2CH=CCl2	
0	0	0	0	0	၁	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
НО	OH	OMs	ОМв	вМО	OMs	OMs	соон	СООН	СООН	СООН	соон	СН2ОН	CH ₂ OH	CH2OH	СН2ОН	СН2ОН	F	F	R	
Ħ	Ξ	Ξ	Ξ	Н	Ξ	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	
Ξ	Н	Ξ	H	Н	H	Н	Н	Н	Н	H	Н	Н	Н	н	Н	Н	Н	Н	Н	
=	11	=	Н	H	II	Н	Н	Н	H	Н	Н	Ξ	Н	Н	H	H	H	H	Н	
Me	Me	Me	Me	Me	Me	Me	Me	· Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	
OMe	OMe	ОМе	OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	
OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	
=	=	=	Н	11	=	Н	H	Ξ	=	Н	H	=	=	H	Ή	王	Ξ	王	н	į
=	H	Ξ	Η	Ξ	=	Н	Н	H	=	Н	H	=	Ξ	Ξ	Ξ	Ξ	H	H	坩	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	_
=	三	=	Ξ	=	=	Ξ	프	Ξ	=	H	Ξ	=	H	H	Ξ	Ŧ	=	H	H	
=	=	Ξ	Ξ	=	=	Ξ	표	Н	=	H	H	=	Ξ	Ξ	Ξ	H	=	Ξ	Ξ	;
+-0fH20-	-Oc1120-	-OCH3O-*	-0cH20-*	-0cH20-*	*-05H3O-	+-0ºH20-	-0cH20-	-0CH20-*	+-05H2O-	-0CH20-	-0CH20-	+-07H2O-	-0cH20-*	-0CH20-*	-0CH20-*	-0CH20-*	-OCH2O-*	-0CH20-*	-0CH2O-*	0 1100
1.1831	1.1832	I-1833	1.1834	1.1835	1.18:36	1-1837	I-1838	1.1839	1.1840	1.1841	I-1842	1.1843	1.1844	I-1845	I-1846	I-1847	1.1848	1.1849	I-1850	-

Table 293

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	_	T -		_		_														
-CH2CaH4-4-Ma	+-	-(CH ₂),CH=CM ₂ ,	-CH,CH=CCI,	-CH.C.E.CM	<u> ĭ</u>	┼	-(CH ₂) ₂ CH=CMe ₂	− CH ₂ CH=CCl ₂	-CH°C≡CM°	-CH ₂ C ₂ H ₂ -4-M ₂	-CH,CH = CMa.	-(CH ₂),CH=CMe ₃	-CH ₂ CH=CC ₁	-CH°C≡CM°	-CH°C'·H·-4-M°	-CHOCHO	- (CH ₂) ₂ CH = CM ₂	-CH ₂ CH=CCl ₂	-CH ₂ C≡CM _e	-CH2C6H4-4-Me
0	0	С				0	0	0			0	0	c					0	0	0
Œ	НО	НО	Ð	HO	НО	OMs	OMs	OMa	OMa	OMs	COOH	СООН	СООН	COOH	COOH	CHOH	CHOOH	СН-ОН	СН2ОН	СН2ОН
二	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	=	Ξ	=	Н	H	Ξ	Ξ	=	=	Ξ	=	H
Ξ	Ξ	H	Ξ	=	≖	Ξ	H	H	H	H	Ħ	H	H	H	Ξ	Ξ	=	H	H	H
E	=	H	Ξ	=	H	H	Н	Н	H	H	=	Ξ	H	Ξ	Ξ	Ξ	Ξ	H	H	H
Me	Н	Н	H	=	=	Н	Н	H	н	H	H	Н	Н	H	Ξ	H	H	н	Н	Н
OMe	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe
ОМе	ОМе	ОМе	OMe	ОМе	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	ОМе ОМе
=	·=	Ш	Н	П	П	=	=	Ξ	Н	Н	Н	Ξ	н	Н	=	H	н	Н	H	H
=	=	=	H	Н	H	王	三	H	H	Œ	H	王	Η	Ξ	H	Н	Н	H	H	
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	=	=	=	=	=	=		Ξ	=	王	=	Ξ	H	H		Н	Ξ	긐	H	H
Ξ	=	Ξ	=	Ξ	=	=	三	三	三	国	Ξ	=	田	H	=	Н	H	H	H	H
-0CH2O-*	-OCH2O-*	-OCH2O-*	-OCH2O-*	-OCH2O-*	OcH2O	-0CH20-*	-0cH20-*	-OCH20-*	-0CH20-*	-0CH ₂ O-*	-0CH2O-*	-OCH2O-*	-0cH20-*	-0CH2O-*	-OCH2O-*	-0CH ₂ O-*	-0CH20-*	-0CH20-*	-OCH ₂ O-*	-0cH20-*
1.1852	1.1853	I-1854	1.1855	1.1856	1.1857	1.1858	1.1859	I.1860	I.1861	I-1862	1.1863	1-1864	I-1865	I.1866	1.1867	I.1868	I.1869	I-1870	1.1871	1.1872

Table 294

_		Τ.	_		_	т-	_			_	_				,		,		,	
- CH ₂ CH=CMe ₂	- (CH ₂) ₂ CH = CMe ₂	-CH2CH=CCI2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	$-(CH_2)_2CH=CMe_2$	- CH2CH=CCl2	- CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	- CH2CH = CCl2	- CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH2)2CH = CMe2	-CH2CH=CCI2	- CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Œ,	Ą	년	હ	저	ЮН	НО	ЮН	ОН	НО	OMs	OMe	ОМв	OMB	ОМв	СООН	СООН	СООН	СООН	соон	СН2ОН
Ħ	Н	Н	Н	Н	Н.	Н	H	H	Н	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Н
E	Η	Н	=	Н	H	Н	=	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
	Ξ	Н	Ξ	Н	Н	Н	Ξ	H	Н	П	Н	Н	H	Ξ	Н	Н	Н	H	Н	Н
Ξ	H	Н	11	Н	HO	НО	IIO	OH	НО	ОН	ОН	НО	НО	ОН	ОН	ОН	ОН	ОН	ОН	ОН
ОМе	OMe	OMe	OMe	ОМе	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе
OMe	OMe	OMe	OMo	ОМе	ОМе	OMe	ОМе	OMe	ОМе	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе
=	픠	=	크	Ξ	<u></u>	-	~	<u>-</u>	Ŀ	F	æ	F	Œ,	٤	E	Œ	<u>[</u> 2.	Œ,	Ŀ	Ŀ
=	王	Ξ	Ξ	Ξ	Ξ	٥	. <u>=</u>	=	Ξ	Ξ	H	Н	H	П	H	Н	H	H	H	H
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	=	Ξ		Ξ	=	=	=	=	프	=	Н	Н	Ξ	=	=	Ξ	Ξ	=	포	H
티	Ξ	Ξ		=	픠	三	=	=	Ξ	Ξ	Ξ	Ή	Ξ	=	Ξ	H	H	H	田	Ξ
OcH30-	OCH20-*	-OCH ₂ O-*	-OCH2O-*	-0cH20-	*-0 ⁷ H20-	-OCH2O-*	+-OcH2O-+	-OCH2O-*	-OCH2O-*	-0CH ₂ O-*	-OCH20-*	-OCH2O-*	-0CH ₂ O-*	-OCH2O-*	OCH2O-*	-0CH ₂ 0-*	-0CH ₂ 0-*	-0CH ₂ O-*	-0CH ₂ O-*	-0CH ₂ O-*
1.1873	1.1874	1.1875	1.1876	1.1877	1.1878	1.1879	1.1880	1.1881	I.1882	1.1883	1.1884	I-1885	I-1886	1.1887	1.1888	I.1889	I.1890	1.1891	1.1892	I.1893

Table 295

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t)	
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- (CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	- (CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	-CH₂C≡CMe	-CH2C6H4-4-Me	-(CH2)2CH = CMe2	-CH2CH=CCl2	-CH2C≡CMe	-CH2CH=CMe2	$-(CH_2)_2CH=CMe_2$	-CH2CH=CCl2	-CH2C≡CMe	-CH2C8H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CC12	MO≡CW-
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
CH ₂ OH	СН2ОН	CH2OH	СН2ОН	Ŗ	H.	Ä	F	F	но	ОН	ОН	OMs	OMs	OMB	ОМв	ОМв	СООН	соон	СООН	HOOD
	H	Н	H	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
Ξ	Н	Ħ	H	Н	Н	Н	Н	H	H	H	Н	Н	Н	Н	H	H	Н	Н	Н	Н
Ξ	H	Ξ	H	=	=	Н	H	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	H	Н	Н
НО	НО	Ю	Ю	НО	HO	НО	ЮН	ОН	НО	НО	НО	НО	НО	ОН	ОН	ОН	ОН	ОН	ОН	НО
OMe	OMe	ОМе	ОМе	ОМе	OMe	ОМе	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe
ОМе	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe
=	-	-	6	<u>-</u>	-	<u>r</u> .,	=	Œ.	H	Н	H	Ξ	H	H	H	Ξ	Ξ	Ξ	H	H
三	프	Ξ	Ξ	=	=	포	Ή	Ξ	Ξ	Н	Н	Н	H	H	Ħ	Ή	H	Н	H	ΈΞ
*	*	*	*	*	*	*	*	*	Н	Н	Н	H	н	H	Ή	H	H	H	Ξ	#
	Ξ	=	=	Ξ	Ξ	Η	H	Ξ	Ξ	Н	Н	=	H	H	王	Ή	Ξ	Ξ	H	Н
	Ξ	三	크	三	=	Ξ	프	H	=	H	H	=	Н	Н	H	H	프	田	H	Ή
+-04H20-	* - OZHZO - *	-OCH2O-*	-OCH20- *	-0cH20-*	+-07H2O-	-OCH2O-*	- OCH ₂ O - *	-OCH20-*	NMe ₂	NMe ₂	NMe ₂	NMe,	NMe ₂	NMe ₂	NMe ₂	NMe ₂				
1.1894	1.1895	1.1896	I-1897	1.1898	1-1899	1-1900	1.1901	I.1902	1.1903	1.1904	1.1905	1.1906	1.1907	I-1908	I-1909	1-1910	1.1911	1.1912	I-1913	I.1914

Table 296

1.1915	NMe	三	Ξ	Ξ	Ξ	Ξ	OMe	OMe	OH		크	=	СООН	0	-CH2C6H4-4-Me
1.1916	NMc2	=	=	=	=	=	OMe	ОМе	OH	=	三	三	СН2ОН	0	-CH2CH=CMe2
1-1917	NMe ₂	Ξ	H	Н	Н	Ξ	OMe	ОМе	ЮН	Ξ	프	Ξ	СН2ОН	0	$-(CH_2)_2CH = CMe_2$
1-1918	NMe ₂	Ξ	Ĥ	H	Н	H	OMe	OMe	ЮН	픠	프	. =	СН2ОН	0	-CH2CII=CCl2
1.1919	NMe	Ξ	Ξ	Η	Ξ	Ξ	ОМе	ОМе	НО	=	Ξ	Ξ	СН2ОН	0	-CH2C≡CMe
1.1920	NMe	Ξ	ΙΞ	=	Ξ	=	OMe	OMe	ОН	Ξ	Ξ	Ξ	СН2ОН	0	-CH2C6H4-4-Me
1.1921	NMe ₂	Ξ	=	Н	H	H	OMe	OMe	ОН	Ξ	王	프	F	0	-CH2CH=CMe2
1.1922	NMe ₂	Н	Н	Н	Н	Н	ОМе	OMe	ЮН	Ξ	Ξ	Ξ	Ŗ	0	$-(CH_2)_2CH=CMe_2$
1.1923	NMe ₂	Н	H	Н	н	H	ОМе	OMe	ЮН	Ξ	Ξ	Ξ	ম	0	-CH2CH=CCl2
I.1924	NMe ₂	Н	Ξ	Н	Н	н	OMe	OMe	ЮН	프	Ξ	Ξ	Œ,	0	-CH2C≡CMe
1.1925	NMe ₂	H	Ŧ	Н	Н	Н	OMe	OMe	НО	Ξ	H	프	ᅜ	0	-CH ₂ C ₆ H ₄ -4-Me
1-1926	NMe ₂	H	Ξ	Н	=	Ξ	ОМе	ОМе	СООН	Ξ	三	Ξ	НО	0	-CH2CH=CMe2
1-1927	NMe ₂	Ξ	=	Н	H	Ξ	OMe	ОМе	СООН	三	三	크	ЮН	0	-(CH ₂) ₂ CH=CMe ₂
1.1928	NMe ₂	Н	H	Н	Н	Н	ОМе	ОМе	СООН	프	Ξ	Ξ	ОН	0	-CH2CH=CCl2
1.1929	NMe ₂	H	H	н	н	Η	ОМе	ОМе	СООН	Ξ	Ξ	Ξ	ЮН	0	-CH2C≡CMe
1.1930	NMe ₂	Π	=	Ξ	Ξ	=	OMe	ОМе	СООН	프	픠	픠	НО	0	-CH2C6H4-4-Me
1.1931	NMe ₂	Н	H	Ή	Ή	H	ОМе	OMe	СООН	三	Ξ	三	ОМв	0	-CH2CH=CMe2
I-1932	NMe ₂	H	н	Н	Ξ	H	ОМе	ОМе	нооэ	三	Ξ	프	ОМв	0	- (CH2)2CH=CMe2
I-1933	NMe ₂	H	Н	H	H	Н	ОМе	ОМе	СООН	프	프	프	OMs	0	-CH2CH=CCl2
I-1934	NMe ₂	Н	H	H	Ξ	Ξ	ОМе	OMe	СООН	Ξ	王	田	ОМв	0	- CH₂C≡CMe
1.1935	NMe ₂	H	Ξ	H	Ή	H	OMe	OMe	СООН	H	H	王	ОМв	0	-CH2C6H4-4-Me

. Table 297

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1												1			
1.1936	NMe			=	=	=	ОМе	OMe	COOH	=	Ξ	H	COOII	0	-CH2CH=CMe2
1.1937	NMe2	=	=	=	=	Ξ	OMe	OMe	СООН	Ξ	H	н	СООН	0	-(CH ₂) ₂ CH=CMe ₂
1-1938	NMe2	=	=	三	Ξ	=	OMe	OMe	соон	H	H	H	С00Н	0	-CH2CH=CCl2
	NMe ₂	Ξ	Н	Ξ	H	H	ОМе	OMe	СООН	H	Н	H	соон	0	-CH2C≡CMe
\neg	NMe ₂	Ξ	Ξ	H	Ξ	=	ОМе	OMe	СООН	Ξ	H	Н	соон	0	-CH2C6H4-4-Me
1.1941	NMe ₂	Ξ	Ξ	Ε	H	Н	ОМе	ОМе	соон	Ξ	H	Н	CH2OH	0	-CH2CH=CMe2
1.1942	NMe ₂	Ξ	Ξ	H	H	=	ОМе	OMe	СООН	Ξ	H	H	СН2ОН	0	- (CH ₂) ₂ CH = CMe ₂
1.1943	NMe ²	H	Ξ	Н	H	H	OMe	OMe	нооэ	Ξ	Ξ	H	СН2ОН	0	-CH2CH=CCl2
1.1944	NMe ₂	H	H	Н	H	Н	OMe	ОМе	СООН	Ξ	H	H	CH2OH	0	-CH2C≡CMe
I-1945	NMe ₂	Н	H	Н	H	Ħ	OMe	OMe	000	三	H	H	CH ₂ OH	0	-CH2C6H4-4-Me
I.1946	NMe ₂	H	Ξ	Н	Н	Ξ	OMe	OMe	Н000	H	H	Н	F	0	-CH2CH=CMe2
1.1947	NMe2	Ξ	н	Η	Н	Ξ	OMe	OMe	соон	H	Н	Н	F	0	-(CH ₂) ₂ CH=CMe ₂
I-1948	NMe ₂	H	H	H	н	Н	OMe	ОМе	соон	H	Н	H	F	0	- CH2CH=CCl2
I-1949	NMe ₂	H	Ή	Н	Н	H	ОМе	ОМе	СООН	Ξ	Ħ	Н	F	0	CH2C≡CMe
1.1950	NMe ₂	H	Ή	Ξ	H	王	ОМе	ОМе	соон	Ξ	Ħ	H	F	0	-CH2C6H4-4-Me
1.1951	NMe ₂	Ξ	王	Ξ	Ξ	Ξ	ОМе	OMe	СН2ОН	三	Ξ	Ξ	ЮН	0	-CH2CH=CMe2
I-1952	NMe ₂	H	H	H	H	E	ОМе	OMe	СН2ОН	Ξ	프	H	ОН	0	$-(CH_2)_2CH=CMe_2$
I-1953	NMe ₂	Ξ	H	H	H	王	OMe	OMe	СН2ОН	H	Н	H	ОН	0	CH2CH=CCl2
1.1954	NMe ₂	Ξ	H	Ξ	H	Ξ	OMe	OMe	СН2ОН	H	H	Н	НО	0	-CH2C≡CMe
1.1955	NMe ₂	Ξ	Ξ	Ξ	田	Ξ	OMe	OMe	CH2OH	H	H	三	ОН	0	-CH2C6H4-4-Me
I-1956	NMe ₂	H	Н	H	Н	Н	OMe	OMe	CH ₂ OH	H	Ξ	H	OMs	0	-CH2CH=CMe2

Table 298

1-1957	NMea	Ξ		=	=	=	OMe		OMe CH2OH	Ξ	=	Ξ	OMs	0	-(CH2)2CH=CMe2
1.1958	NMe2	=	Ξ	Ξ	Ξ	==	OMe	OMe	СН2ОН	Ξ	Ξ	Ξ	ОМв	0	-CH2CH=CCl2
1-1959	NMe2	11	=	н	1.1	Ξ	ОМе	OMe	CH2OH	=	H	Ħ	ОМв	0	CH2C≡CMe
0961-1	NMc2	11	11:	11	П	11	OMe	OMe	CHZOH	=	H	H	ОМв	0	-CH2C6H4-4-Me
1.1961	NMe ₂	Н	Н	Н	Н	11	ОМе	OMe	OMe CH2OH	Ξ	Ξ	Ħ	COOH	0	-CH2CH=CMe2
1.1962	NMe ₂	11	=	н	11	Ξ	ОМе	OMe	СН2ОН	=	Η	Ξ	СООН	0	$-(CH_2)_2CH = CMe_2$
1.1963	NMc ₂	H	н	н	Н	11	OMe	OMe	СН2ОН	H	Н	H	нооэ	0	-CH2CH=CCl2
1-1964	NMe2	Н	11	н	II	H	OMe	ОМе	СН2ОН	Ξ	H	н	нооэ	0	−CH2C≡CMe
I-1965	NMe ₂	Н	Н	Н	Н	Н	ОМе	OMe	СН2ОН	H	Н	H	СООН	0	-CH2C6H4-4-Me
1.1966	NMe ₂	Н	Н	Н	Н	Н	OMe	ОМе	СН2ОН	H	Н	н	СН2ОН	0	-CH2CH=CMe2
1-1967	NMe ₂	H	H	H	Н	Н	OMe	ОМе	СН2ОН	Ξ	H	Н	СН2ОН	0	$-(CH_2)_2CH=CMe_2$
1.198	NMc2	Н	H	Н	Н	Ξ	ОМе	OMe	OMe CH2OH	Ξ	H	Н	СН2ОН	0	-CH2CII=CCl2
1-1969	NMe2	Н	H	Ή	Н	H	ОМе	OMe	СН2ОН	Ξ	H	Н	СН2ОН	0	-CH₂C≡CMe
1.1970	NMe ₂	Н	H	н	Н	Н	ОМе	OMe	СН2ОН	Ξ	H	H	СН2ОН	0	-CH2C6H4-4-Me
I-1971	NMe ₂	Н	Н	Н	Н	H	ОМе	OMe	OMe CH2OH	H	H	H	Ŀ	0	-CH2CH=CMe2
I-1972	NMe ₂	Н	H	Н	Н	Н	OMe	OMe	СН2ОН	Ξ	H	Ħ	Œ	0	- (CH ₂) ₂ CH=CMe ₂
1.1973	NMe ₂	Н	Н	Н	Н	Н	OMe	OMe	СН2ОН	Ξ	H	н	Œ	0	-CH2CH=CCl2
I-1974	NMe ₂	Н	н	Н	Н	Н	OMe	ОМе	СН2ОН	H	H	Н	ርዲ	0	−CH2C≡CMe
I-1975	NMe ₂	Н	Н	Н	Н	Н	OMe	ОМе	СН2ОН	H	Н	Н	(Z.,	0	-CH2C6H4-4-Me
1-1976	NMe ₂	Н	Н	Н	Н	Н	ОМе	ОМе	Me	Ξ	Ξ	H	НО	0	-CH2CH=CMe2
1.1977	NMe ₂	Н	Н	Н	Н	Н	OMe	OMe	Me	H	H	H	ОН	0	-(CH ₂) ₂ CH=CMe ₂

Table 299

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		-	-												
1.1978	NMez	Ξ	=	티		=	OMe	OMe	Me	ш	Н	=	НО	0	-CH2CH=CCl2
1.1979	NMe	=	Ξ	=	=	Ξ	OMe	OMe	Me	Н	н	Ξ	НО	0	-CH2C≡CMe
1.1980	NMe ₂	=	Ξ	Ξ	Ξ	Ξ	ОМе	OMe	Me	=	王	Ξ	НО	0	-CH ₂ C ₆ H ₄ -4-Me
1.1981	NMe ₂	Ξ	=	Ξ	Ξ	Ξ	ОМе	OMe	Me	Ξ	Ξ	Ξ	OMs	0	-CH2CH=CMe2
1.1982	NMe ₂	Ξ	=	Ξ	=	Ξ	OMe	ОМе	Me	Ξ	Ξ	Ξ	OMs	0	-(CH ₂) ₂ CH=CMe ₂
1-1983	NMc2	=	=	=	=	=	OMe	ОМе	Me	=	Ξ	Ξ	OMs	0	-CH2CH=CCl2
1.1984	NMe ₂	Ξ	=	=	Ξ	Ξ	OMe	OMe	Me	Ξ	프	Ħ	OMs	0	-CH2C≡CMe
I.1985	NMe ₂	Ξ	=	王	三	H	ОМе	OMe	Me	Ξ	н	H	OMs	0	-CH2C6H4-4-Me
1.1986	NMe ₂	三		Ξ	H	Ξ	OMe	ОМе	Me	H	Н	Н	СООН	0	-CH2CH=CMe2
I-1987	NMe ₂	Ξ	Ξ	Ξ	H	H	OMe	ОМе	Me	Н	Н	Н	СООН	0	$-(CH_2)_2CH = CMe_2$
I-1988	NMe ₂	픠	티	Ξ	Ξ	H	ОМе	OMe	Me	Н	Н	Н	СООН	0	-CH2CH=CCl2
1.1989	NMe	=	=	Ξ	=	Ш	OMe	OMe	Me	П	Н	H	СООН	c	-CH2C≡CMe
1.1990	NMe ₂	Ξ	=	=	Ξ	Ξ	ОМе	ОМе	Me	Н	Н	Н	СООН	0	-CH2C6H4-4-Me
1.1991	NMe ₂	프	H	H	Н	Η	OMe	ОМе	Me	Н	Н	Н	СН2ОН	0	-CH2CH=CMe2
I-1992	NMe ₂	Ξ	Ξ	H	H	H	ОМе	OMe	Me	Н	Н	Н	СН2ОН	0	-(CH2)2CH=CM62
1.1993	NMe ₂	=	=	Ξ	H	=	OMe	ОМе	Me	Ξ	Н	н	СН2ОН	0	- CH2CH = CCl2
I-1994	NMe ₂	Ξ	Ξ	Н	H	H	ОМе	OMe	Me	Н	Н	Н	СН2ОН	0	-CH2C≡CMe
1.1995	NMe ₂	H	Н	Н	Н	н	OMe	OMe	Me	Н	Н	Н	СН2ОН	0	-CH2C6H4-4-Me
1.1996	NMe ₂	Н	Н	Н	Н	H	OMe	OMe	Me	Н	H	Н	Œ,	0	- CH2CH=CMe2
1.1997	NMe ₂	H	H	Н	Н	H	OMe	OMe	Me	Н	Н	H	ᄄ	0	$-(CH_2)_2CH = CMe_2$
I.1998	NMez	Ξ	Ή	Ή	Ξ	H	OMe	OMe	Me	H	Н	H	Ŀ	_	-CHoCH=CCI

Table 300

1.1999	NMez	Ξ	=	=	Ξ	=	OMe	ОМе	Me	H	田	Ξ	۲.	0	– CH₂C≡CMe
1.2000	NMe ₂	Н	н	Н	Ξ	=	ОМе	OMe	Me	Ξ	Ξ	王	F	0	-CH2C6H4-4-Me
1.2001	NMe2	н	Ξ	=	=	=	OMe	OMe	H	=	프	Ξ	НО	0	-CH2CH=CMe2
1.2002	NMe ₂	Н	11	н	Н	Ξ	OMe	ОМе	H	Ξ	Ξ	Ξ	НО	0	- (CH2)2CH=CMe2
1.2003	NMe	П	11	H	Н	=	OMe	OMe	11	Ξ	H	Ŧ	HO	0	-CH2CH=CCl2
1.204	NMez	Н	11	11	11	=	OMe	OMe	=	Ξ	=	=	OH	၁	– CH₂C≡CMe
1.2005	NMe2	11	Н	Н	H	==	OMe	ОМе	=	=	Ξ	=	OH	0	-CH2C6114-4-Me
1.2006	NMez	Н	Н	Н	Н	Н	ОМе	ОМе	Н	Н	H	Ξ	ОМв	0	-CH2CH=CMe2
1.2007	NMez	Н	Н	Н	Н	Н	OMe	ОМе	Н	Н	Н	Ξ	OMs	0	$-(CH_2)_2CH = CMe_2$
1.2008	NMe ₂	H	Н	Н	Н	Н	OMe	ОМе	Н	H	H	H	ОМв	0	- CH2CH=CCl2
6002-1	NMe ₂	Н	Н	Н	Н	H	OMe	OMe	н	H	Н	H	OMs	0	-CH2C≡CMe
0107-1	NMc2	Н	11	Η	Ξ	Ξ	OMe	ОМе	Н	Ξ	Ξ	Ξ	ОМв	0	-CH2C6H4-4-Me
1.2011	NMc2	Н	Н	H	H	H	OMe	ОМе	H	Ξ	H	H	С00Н	0	-CH2CH=CMe2
1.2012	NMe2	Н	Н	Н	Н	Н	OMe	OMe	Н	Н	H	Ξ	С00Н	0	- (CH ₂) ₂ CH=CMe ₂
1.2013	NMe2	Н	Н	Н	Н	Н	OMe	ОМе	Н	H	Ξ	Ξ	Н000	0	-CH2CH=CCl2
1.2014	NMe	н	Н	н	Н	Ξ	OMe	OMe	Н	Ξ	Ξ	H	нооэ	0	- CH2C≡CMe
1.2015	NMe ₂	Н	Н	H	Н	Н	OMe	OMe	Н	H	H	王	СООН	0	-CH2C6H4-4-Me
1.2016	NMe2	Н	Н	Н	Н	H	OMe	ОМе	Н	H	Ή	Ξ	СН2ОН	0	-CH2CH=CMe2
1.2017	NMe ₂	Н	Н	Н	Н	Ξ	OMe	OMe	Н	Ξ	H	王	СН2ОН	0	-(CH2)2CH=CMe2
1-2018	NMe	Н	Н	Н	Ξ	Ξ	OMe	OMe	H	Ξ	H	王	СН2ОН	0	-CH2CH=CCl2
1.2019	NMe2	Н	Н	Н	Н	H	OMe	ОМе	Н	H	H	н	СН2ОН	0	CH2C≅CMe

Table 301

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5	H4-4-Me	-CH2CH=CMe2	$-(CH_2)_2CH = CMe_2$	- CH2CH=CCl2	-CH2C≡CMe	CH2Call4-4-Me	-CH2CH=CMe2	-(CH2)2CH=CMe2	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	−CH2C≡CMe	CH2C6H4-4-Me	-CH2CH=CMe2	$-(CH_2)_2CH = CMe_2$	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me
10	-CH2C6H4-4	-CH2C	-(CH ₂) ₂	- CH2	-CH2	- CH2C6	-CH2C	-(CH ₂) ₂	-CH2(-CH2	- CH2C6	-CH2C	- (CH ₂)2	-CH2C	-CH2	-CH2Ce	CH2C	$-(CH_2)_2$	-CH2C	-CH2	-CH2Cel
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	СН2ОН	ন	ᄺ	P	ብ	ત	НО	ОН	ОН	ОН	ОН	OMs	OMs	ОМв	OMs	ОМв	СООН	соон	СООН	нооэ	СООН
20	王	三	Ξ	Ξ	Ħ	H	H	H	Н	H	Н	H	H	Н	Н	H	H	Н	Н	Н	H
	Ξ	Ξ	Ξ	=	H	Н	Н	Н	H	Н	H	Н	Н	H	Н	Н	H	Н	Н	Н	H
	Ξ	H	Ξ	=	H	=	H	H	H	Н	H	Ξ	Ħ	Н	Н	H	Н	Ξ	Н	H	H
25	H	Ξ	Ξ	=	H	н	НО	НО	ЮН	ОН	ОН	ОН	ЮН	ОН	ОН	ОН	ОН	НО	ОН	НО	НО
30	OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	ОМе	OMe
	OMe	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	OMe	ОМе	OMe	OMe	ОМе	ОМе	ОМе	OMe	ОМе	OMe
	픠	=	=	=	Ξ	=	<u></u>	-	ᄄ	ĒZ,	Ŀ	<u>r-</u> ,	ß	62.	G.	Œ,	[]	ᄄ	ഥ	[Z.	(F)
35	三	=	Ξ	=	Ξ	=	Ξ	Ξ	Ħ	Ξ	=	H	포	H	H	Н	Н	Н	Н	Н	H
	=	=	=	=	=		×	=	Ξ	H	H	H	H	Н	H	Н	Н	Н	Н	H	H
40	=	=	=	=	H	=	Н	H	Н	Н	Ξ	=	Ξ	Н	Ξ	H	Ξ	H	Н	Ξ	H
	Ξ	=	Ξ	=	Ξ	=	Ξ	Ξ	H	Н	H	Ξ	H	Н	Ξ	H	H	H	H	H	H
45	NMc2	NMe ₂	NMe2	NMe ₂	NMe ₂	NMez		NMe ₂	NMe ₂	NMez	NMe ₂	NMe ₂	NMe ₂	NMez	NMe ₂	NMe2	NMe ₂	NMe ₂	NMe ₂	NMe ₂	NMe ₂
50	1-2020	1.2021	1.2022	1.2023	1.2024	1.2025	1.2026	1.2027	1.2028	1.2029	1.2030	1.2031	1.2032	1.2033	1.2034	1.2035	1.2036	1.2037	1.2038	I.2039	1.2040

Table 302

1.2041	NMe ₂	H	Ξ	H		£.	ОМе	OMe	HO		프	Ξ	СН1ОН	0	-CH2CH=CMe2
1.2042	NMe ₂	H	Ξ	Н	H	F	ОМе	ОМе	ОН	Ξ	프	H	СН2ОН	0	-(CH ₂) ₂ CH=CMe ₂
1.2043	NMe ₂	Ξ	Ξ	H	=	-	ОМе	OMe	НО	=	Ξ	=	CH2OH	0	-CH ₂ CII=CCl ₂
1.2044	NMe	11	=	Н	Η	~	OMe	OMe	ОН	Ξ	H	Η	СН2ОН	0	−CH2C≡CMe
1.2045	NMe ₂	11	=	Н	Ξ		OMe	OMe	HO	=	Ξ	H	СН2ОН	0	-CH2Call4-4-Me
1.2046	NMe ₂	=	=	П	Ξ	-	ОМе	UMe	ЮН	Ξ	Ξ	Н	F	0	-CH2CH=CMe2
1.2047	NMe ₂	Н	=	H	Н	2	OMe	ОМе	НО	H	Ξ	Н	Ŀ	0	$-(CH_2)_2CII = CMe_2$
1.2048	NMez	н	H	Н	н	Ŀ	OMe	ОМе	ЮН	H	Н	H	ᅜ	0	-CH2CH=CCl2
1.2049	NMez	Н	H	Н	Н	[±.	OMe	ОМе	ЮН	Н	Н	Н	ᄕ	0	-CH2C≡CMe
1.2050	NMe ₂	н	H	Н	Ξ	Ŀ	OMe	ОМе	ОН	Н	Н	Н	ഥ	0	-CH ₂ C ₆ H ₄ -4-Me
1-2051	СООН	Н	Ħ	Ξ	Ξ	Н	OMe	ОМе	НО	Ξ	H	Н	НО	0	-(CH ₂) ₂ CH=CMe ₂
1.2052	COOH	Ξ	Ξ	H	=	=	OMe	ОМе	ОН	Ξ	H	Ξ	НО	0	-CH2CII=CCl2
I-2053	Н000	Н	Ή	Н	Ή	Ξ	OMe	ОМе	НО	Н	Н	Ξ	НО	0	-CH2C≡CMe
I-2054	СООН	Н	Н	н	Н	H	OMe	OMe	НО	Н	Н	Н	ОМв	0	-CH2CH=CMe2
1.2055	0001	H	=	H	Ξ	Ξ	OMe	ОМе	НО	H	H	H	ОМв	0	-(CH2)2CH=CMe2
1.2056	СООН	Н	H	H	H	H	OMe	OMe	НО	Н	Н	H	ОМв	0	-CH2CH=CCl2
1.2057	СООН	H	Н	н	Ξ	H	OMe	ОМе	НО	Н	Н	H	OMs	0	– CH₂C≡CMe
1.2058	СООН	Н	Н	H	Ξ	H	OMe	ОМе	НО	H	H	Ħ	OMs	0	-CH2C6H4-4-Me
1-2059	СООН	H	н	F	Ξ	H	OMe	ОМе	ОН	H	Н	H	нооэ	0	-CH2CH=CMe2
1.2060	Н000	Н	H	H	Ħ	Ξ	OMe	OMe	НО	Н	H	三	нооо	0	-(CH2)2CH=CMe2
1.2061	Н000	Н	Н	H	Н	H	OMe	OMe	ОН	Н	H	H	СООН	0	- CH2CH=CCl2

Table 303

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- 1			_	_	_		~														
	-CH2C≡CMe	-CH2C6H4-4-Me	- CH ₂ CII = CMe ₂	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCI2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	$-(CH_2)_2CH = CMe_2$	-CH2CH = CCl2	– CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCI2	-CH2C≡CMe
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C0011	СООН	СН2ОН	СИ2ОН	СН2ОН	СН2ОН	СН2ОН	Œ	댼	Ā	ম	स	ЮН	НО	ОН	НО	НО	OMs	, OMs	OMs	OMs
	Ξ	Ħ	H	н	H	H	Н	Н	H	Н	Н	Н	Н	Ħ	н	Н	н	Ξ	Н	H	H
	Ξ	H	Н	H	H	=	Н	Н	Н	H	Н	Н	H	н	Н	Н	Н	H	Н	Н	Н
		H	H	Ξ	П	П	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Ħ	Н	Н	H
	ΞŌ	НО	OII	110	OH	OH	ОН	ОН	ОН	ОН	ЮН	ЮН	соон	соон	соон	соон	соон	соон	соон	соон	СООН
	OMe	OMe	OMe OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	OMe	ОМе	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe
	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	ОМе	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	OMe	ОМе ОМе
	Ξ	Ξ	Ξ	=	=	=	×	Н	Н	Ή	Н	Н	H	H	Ξ	H	H	Н	Ξ	H	H
L	=	프	=	=	=	Ξ	Н	Н	H	H	Η	H	H	H	=	Ξ	H	H	Ξ	Ξ	Ħ
	=	=	=	=	=	Ξ	Ē	H	H	H	H	H	H	Ή	Ξ	H	H	Ħ	Ξ	Ξ	田
	=	=	=	=	H	Η	=	=	Ξ	Ξ	国	Ξ	Ξ	Ξ	=	Ξ	H	H	=	田	H
	=	=		=	=	=	Ξ	H	H	H	H	Ξ	Ξ	Ξ	=	Ξ	Ξ	Ξ	=	Ξ	H
	00011	0001	СООН	HOOD	C00H	ПООЭ	НООЭ	СООН	СООН	СООН	СООН	СООН	СООН	СООН	СООП	СООН	СООН	СООН	СООН	СООН	соон
	I-2062	1.2063	1.2064	1.2065	1.2066	1.2067	1.2068	1.2069	1-2070	1.2071	1.2072	1.2073	1.2074	1.2075	1.2076	1.2077	-2078	-2079	-2080	2081	-2082

C.

Table 304

1-2085 COOII II II II II OMe COOII II II II OMe COOII II II II II III III	II OMe ON	OMe COOH	Ξ	Ξ	듸	ОМв	0	-CH2C6H4-4-Me
COOH II II II II OMe OMe COOH COOH II II II II OMe OMe COOH COOH II II II II OMe COOH COOH II II II OMe OMe COOH COOH II II II II OMe COOH COOH II II II II OMe COOH COOH II II II II II OMe COOH COOH II II II II II II OMe COOH COOH II II II II II II II II COOH II II <td>OMe</td> <td></td> <td></td> <td>王</td> <td>Ξ</td> <td>соон</td> <td>0</td> <td>-CH2CH=CMe2</td>	OMe			王	Ξ	соон	0	-CH2CH=CMe2
COOII II II II OMe OMe COOII COOIII II II II OMe OMe COOII COOIII II II II II OMe OMe COOII COOIII II II II II OMe OMe COOII COOIII II II II II II OMe COOII COOH II II II II II OMe COOH COOH II II II II II OMe COOH COOH II II II II II II OMe COOH COOH II II II II II II OMe COOH COOH II II II II II II OMe COOH COOH II II II II II II II<	OMe		Ξ	=	Ξ	11000	0	-(CH ₂) ₂ CH=CMe ₂
COOH H H H H OMe OMe COOH COOH H H H H H OMe COOH COOH H H H H H OMe COOH COOH H H H H H H H COOH H H H H H H H OMe COOH COOH <td>OMe</td> <td></td> <td>\dashv</td> <td>=</td> <td>픠</td> <td>11000</td> <td>0</td> <td>-CH2CH=CCl2</td>	OMe		\dashv	=	픠	11000	0	-CH2CH=CCl2
COOII II II II II OMe OMe COOII COOII H H H H OME COOH H H H DMe OMe COOH COOH COOH COOH COOH H H H H DMe COOH COOH COOH COOH COOH COOH COOH H H H H DMe COOH COOH	ОМе			Ξ	Ξ	СООН	0	– CH₂C≡CMe
COOIH H H H OMe OMe COOH COOOH H H H H OMe COOH COOH COOH H H H H OMe COOH COOH COOH H H H H OMe COOH COOH COOH H H H H OMe OMe COOH COOH H H H H OMe OMe COOH COOH H H H H OMe OMe COOH COOH H H H H H OMe COOH COOH H H	ОМе		\dashv	=	Ξ	COOII	၁	-CH2Call4-4-Me
COOH H H H H H H H H H H H H H H H H H H COOH H H H H OMe COOH COOH COOH COOH COOH H H H H OMe COOH COOH COOH COOH H H H H OMe COOH COOH COOH COOH H H H H OMe COOH COOH COOH COOH COOH H H H H H DWe COOH CH3OH COOH H H H H H H CH3OH CH3OH CH3OH CH3OH CH3OH CH3OH CH3OH CH	ОМе			H	H	CH ₂ OH	0	-CH2CH=CMe2
COOH H H H H OMe OMe COOH COOH H H H H OMe CH2OH COOH H H H H OMe CH2OH </td <td>ОМе</td> <td>-</td> <td></td> <td>H</td> <td>Ξ</td> <td>СН2ОН</td> <td>0</td> <td>-(CH2)2CH=CMe2</td>	ОМе	-		H	Ξ	СН2ОН	0	-(CH2)2CH=CMe2
COOH H H H H OMe OMe COOH COOH H H H H OMe CMcOH	OMe		\dashv	Ξ	프	CH ₂ OH	0	-CH2CH=CCl2
COOH H H H H OMe OMe COOH COOH H H H H OMe OMe COOH COOH H H H H OMe OMe COOH COOH H H H H OMe COOH COOH COOH H H H H OMe OMe COOH COOH H H H H OMe COOH COOH H H H H OMe CH2OH	ОМе	-		H	H	СН2ОН	0	– CH₂C≡CMe
COOH H H H H OMe OMe COOH COOH H H H H OMe OMe CH2OH COOH H H H H OMe CH2OH COOH H H H H OMe CH2OH COOH H H H H OMe CH2OH	ОМе	_	\dashv	H	Ħ	СН2ОН	0	-CH ₂ C ₆ H ₄ -4-Me
COOH H H H H OMe OMe COOH COOH H H H H OMe CH2OH	ОМе		\dashv	H	프	F	0	-CH2CH=CMe2
COOH H H H H OMe OMe COOH COOH H H H H OMe OMe COOH COOH H H H H OMe OMe COOH COOH H H H H OMe OMe CH2OH COOH H H H H H OMe CH2OH COOH H H H H OMe CH2OH	ОМе			H	Ħ	F	0	$-(CH_2)_2CH=CMe_2$
COOH H H H H OMe OMe COOH COOH H H H H OMe OMe COOH COOH H H H H OMe OMe CH2OH COOH H H H H OMe CH2OH COOH H H H H OMe CH2OH COOH H H H H OMe CH2OH	OMe	∔		H	Ξ	F	0	- CH2CH = CCl2
COOH H H H H OMe OMe COOH COOH H H H H OMe OMe CH2OH COOH H H H H OMe OMe CH2OH COOH H H H H OMe OMe CH2OH	OMe		-	H	Ξ	Œ,	0	-CH2C≡CMe
COOH H H H H OMe OMe CH2OH COOH H H H H OMe OMe CH2OH COOH H H H H OMe OMe CH2OH COOH H H H H OMe CH2OH	OMe		-	H	Ħ	ᄄ	0	-CH2C6H4-4-Me
COOH H H H H OMe OMe OMe CH2OH COOH H H H H H OMe CH2OH	ОМе	\rightarrow		Н	Ξ	НО	0	-CH2CH=CMe2
COOH H H H H OMe OMe CH2OH COOH H H H H OMe OMe CH2OH	ОМе	_		H	H	но	0	-(CH2)2CH=CMe2
COOH H H H H OMe OMe CH2OH	ОМе			H	H	НО	0	-CH2CH=CCl2
	OMe			Н	Н	НО	0	-CH2C≡CMe
1.2103 COOH H H H H H OME OME CH2OH H		_		Н	Н	ЮН	0	-CH2C6H4-4-Me

Table 305

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COOH H. H. H. H. OMe OME CH2OH H. H. H. OMS O COOH H. H. H. H. OME OME CH2OH H. H. H. OMS O COOH H. H. H. H. OME OME CH2OH H. H. H. OMS O COOH H. H. H. H. OME OME CH2OH H. H. H. H. OMS O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. COOH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. COOH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. COOH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. COOH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. COOH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. H. CH2OH O COOH H. H. H. H. H. OME OME CH2OH H. H. H. H. F. O. COOH H. H. H. H. H. H. OME OME CH2OH H. H. H. H. H. OME OME CH2OH H. H. H. H. F. O. COOH H. H. H. H. H. H. OME OME CH2OH H. H. H. H. H. H. OME OME CH2OH H. H. H. H. H. H. OME OME CH2OH H.							_														
COOII H. H. H. OMe OMe CH2OH H. H. H. OMe OME CH2OH H. H. H. OMe OME CH2OH H. H. H.	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	- (CH2)2CH=CMe2	- CH2CH=CCl2	- CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	-CH2CH=CCl2	– CH2C≡CMe	-CH2C6H4-4-Me	- CH2CH=CMe2	$-(CH_2)_2CH = CMe_2$	CH2CH=CCl2	– CH₂C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2
COOII II. II. </td <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>၁</td> <td>0</td>	0	0	0	0	0	၁	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COOH H. H. H. H. H. OMe OMe CH2OH H. H. COOH H.	OMs	OMs	OMB	OMs	OMB	COOII	СООН	соон	соон	соон	CH ₂ OH	CH2OH	СН2ОН	CH ₂ OH	СИ2ОН	দ	F	F	뚀	F	НО
COOII II. II II II II II II II II OMe OMe CH2OH II COOII II II II II II OMe CH2OH II COOII II II II II II OMe CH2OH II COOII II II II II II OMe CH2OH II COOII II II II II II II II II II COOII II	Н	H	Ξ	Ħ	Н	=	H	Н	Н	H	H	Н	H	Н	Н	H	H	H	H	Н	Ξ
COOII H. H. H. H. H. OMe OMe CH2OH COOH H. H. H. H. H. H. OMe CH2OH COOH H. H. H. H. H. OMe CH2OH COOH H. H. H. H. H. H. OMe CH2OH COOH H. H. H. H. H. H. OMe CH2OH COOH H.	н	Ħ	Ξ	Ξ	Н	Ξ	H	Н	Н	Н	H	H	Ξ	H	H	포	H	Н	H	Н	H
COOH H H H H OMe OME COOH H H H H H H OME COOH H H H H H H H OME COOH H H H H H H H OME COOH H H H H H H OME COOH H H H H H H OME COOH H H H H H H H OME COOH H H H H H H H OME COOH H H H H H H H OME COOH H H H H H H H OME COOH H H H H H H H OME COOH H H H H H H H H OME COOH H H H H H H H H OME COOH H H H H H H H H OME COOH H H H H H H H OME COOH H H H H H H H H OME COOH H H H H H H H H OME COOH H H H H H H H H OME COOH H H H H H H H H H OME COOH H H H H H H H H OME COOH H H H H H H H H H OME COOH H H H H H H H H H OME COOH H H H H H H H H H OME COOH H H H H H H H H H H OME COOH H H H H H H H H H H OME COOH H H H H H H H H H H OME COOH H H H H H H H H H OME COOH H H H H H H H H H OME COOH H H H H H H H H H H H OME COOH H H H H H H H H H OME COOH H H H H H H H H H H OME COOH H H H H H H H H H H H OME COOH H H H H H H H H H H H OME COOH H H H H H H H H H H OME COOH H H H H H H H H H H H H OME COOH H H H H H H H H H H H H H H H H H H	Ξ	Ξ	=	Ξ	Н	=	H	Н	H	H	Н	Н	Н	Н	Н	H	Н	H	Н	Ξ	H
COOH H H H H H OMe			нолю		СН2ОН	ночю	1			СН2ОН		CH ₂ OH	СИ2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	СН2ОН	Me
H							- 1			OMe	ОМе		ОМе	ОМе	OMe		OMe	OMe	OMe	OMe	OMe
H	OMe	ОМе	ОМе	OMe	ОМе	OMe	OMe	ОМе	OMe	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	OMe
H	H	Ξ	Ξ	Ξ	H	=	Н	Н	Ξ	Ξ	H	Н	H	Η	H	王	Н	Н	H	H	H
H	Н	Н	П	Ξ	Н	=	Ξ	Н	Н	=	Н	H	Ξ	H	H	Ξ	Н	H	H	H	H
H H HOOD H H HOOD	=	Ŧ	Η	=	H	=	.=	Н	H	H	Н	Н	Η	H	H	H	Н	H	Ή	H	H
HOOD HOOD HOOD HOOD HOOD HOOD HOOD HOOD		Ξ	Η	H	=	=	H	Н	Ξ	Ξ	Ξ	Н	=	Ξ	H	田	Н	H	王	H	H
	Ë	Ξ	=	=	Ξ	=	H	H	Ξ	Ξ	Н	Н	Н	H	Н	H	Н	Н	Ξ	Н	H
	COOH	СООН	11000	COOH	COOII	COOII	СООН	СООН	COOII	COOII	COOII	СООН	COOH	COOH	нооэ	COOH	СООН	СООН	Н00Э	СООН	СООН
1-2105 1-2105 1-2106 1-2109 1-2110 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111 1-2111	1.2104	1.2105	1.2106	1.2107	1.2108	1-2109	1.2110	1.2111	1.2112	1.2113	1.2114	1.2115	1.2116	1.2117	1.2118	1.2119	1.2120	1.2121	1.2122	1.2123	1-2124

Table 306

1-2125	COOII	Ξ			=	三	OMe	OMe	Me		Ξ	Ξ	НО	0	$-(CH_2)_2CH=CMe_2$
1.2126	11000	=	н	Ξ	Ξ	Ξ	ОМе	OMe	Me	=	프	Ξ	ОН	0	- CH2CH=CCl2
1.2127	11000	н	Ξ	Н	Н	Ξ	OMe	OMe	Me	=	Ξ	Ξ	ОН	0	-CH2C≡CMe
1.2128	11000	н	Ξ	Н	Н	Ξ	ОМе	OMe	Me	Ξ	프	Ξ	НО	0	-CH2C6H4-4-Me
1.2129	11000	н	н	н	11	=	OMe	ОМе	Me	=	Ξ	Ξ	ОМв	၁	-CH2CH=CMe2
1.2130	11000	П	н	11	Ξ	=	OMe	OMe	Me	Ξ	=	三	ОМв	0	- (CH ₂) ₂ CH=CMe ₂
1.2131	HOOD	Н	н	Н	н	Ξ	OMe	OMe	Me	Ξ	Ξ	H	ОМв	0	-CH2CH=CCl2
1.2132	11000	Н	Н	Н	H	Ή	ОМе	ОМе	Me	H	Ξ	Н	ОМв	0	CH₂C≡CMe
1.2133	H000	Н	Н	Н	H	н	OMe	OMe	Me	Ξ	Ξ	н	ОМв	0	-CH2C6H4-4-Me
1.2134	COOH	Н	Н	Н	Н	Н	OMe	ОМе	Me	Ξ	Ξ	Н	СООН	0	-CH2CH=CMe2
1.2135	НООО	Н	Н	Н	н	H	ОМе	ОМе	Me	H	王	Н	СООН	0	- (CH2)2CH=CMe2
1.2136	11000	Н	Н	Н	Н	Н	ОМе	OMe	Me	H	Ħ	H	СООН	0	-CH2CH=CCl2
1.2137	00011	н	H	Н	H	Ή	OMe	ОМе	Me	Ξ	H	Н	соон	0	-CH2C≡CMe
1.2138	C00H	Н	Н	Н	Н	H	OMe	ОМе	Me	Н	Ξ	Н	СООН	0	-CH2C6H4-4-Me
1.2139	HOOD	Н	Н	н	Н	н	OMe	ОМе	Me	H	Ξ	H	СН2ОН	0	-CH2CH=CMe2
1.2140	COOH	Н	Ή	H	Н	Н	OMe	OMe	Me	H	프	H	СН2ОН	0	$-(CH_2)_2CH = CMe_2$
1.2141	СООН	н	н	H	H	Н	ОМе	OMe	Me	H	H	Н	СН2ОН	0	CH2CH=CCl2
1.2142	11000	Н	ш	Ή	H	Ξ	OMe	ОМе	Me	Н	H	H	СН2ОН	0	- CH2C≡CMe
I-2143	соон	Н	Н	H	H	н	OMe	ОМе	Me	H	Ξ	Ξ	СН2ОН	0	-CH ₂ C ₆ H ₄ -4-Me
1.2144	СООН	Н	H	H	Н	Ξ	OMe	ОМе	Me	H	프	H	দ	0	-CH2CH=CMe2
1.2145	нооэ	Н	H	H	H	Ħ	OMe	OMe	Me	H	Ξ	Ή	Œ,	0	-(CH ₂) ₂ CH=CMe ₂

Table 307

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		•		-	Γ	_		_	T	Γ_			г		_					
-CH2CH=CCl2	– CH₂C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	$-(CH_2)_2CH=CMe_2$	-CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	$-(CH_2)_2CH = CMe_2$	- CH2CH=CCl2	– CH₂C≒CMe	-CH2C6H4-4-Me	CH2CH=CMe2	- (CH2)2CH=CMe2	- CH2CH=CCl2	– CH2C≡CMe	-CH2C8H4-4-Me	- CH2CH=CMe2	- (CH2)2CH=CMe2	-CH2CH=CCl2
0	О	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ţ.	F	ቭ	ОН	ОН	ОН	НО	ЮН	OMe	OMs	OMe	вМО	•МО	нооэ	нооэ	нооэ	соон	нооэ	ĊН2ОН	СН2ОН	СН2ОН
Ξ	=	Ξ	H	Н	H	Н	Н	H	H	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
Ħ	=	Η	H	Н	H	Н	Н	Н	Н	Н	H	H	Н	Н	Н	Н	Н	Н	Н	H
Ξ	=	Ξ	H	Н	П	Н	H	H	Н	Н	Н	Н	Н	Н	H	Н	Н	Н	Н	Н
Me	Me	Me	H	H	=	H	Н	H	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	H
OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	ОМе	ОМе	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe
OMe	OMe	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	OMe
Ξ	=	=	=	Ξ	=	=	王	Н	Н	H	H	Η	Ή	H	H	H	H	H	Ħ	H
Ξ	=	=	=	H	=	Н	Н	H	프	Ξ	Ξ	Ξ	н	H	Ξ	H	Ξ	Ή	H	H
=	=	=	Ξ	H	Ξ	Н	H	H	Н	H	Ή	Ξ	H	H	Ξ	H	H	H	H	H
=	=	=	=	H	=	Ξ	H	=	Ξ	Ξ	H	Ξ	H	Ξ	Ħ	田	三	Ξ	田	Н
	=	=	=	Ξ	=	Ξ	Н	Н	H	Ξ	Ή	Ξ	Ξ	Ξ	H	비	Ξ	Ξ	王	Н
COOH	COOH	00011	11000	HOOD	HOOO	COOH	НООО	COOH	СООН	СООН	СООН	COOH	СООН	СООН	Н000	нооо	СООН	СООН	нооо	СООН
1.2146	1.21.17	1.2148	1.2149	1.2150	1-2151	1.2152	1.2153	1-2154	1.2155	1.2156	I-2157	1.2158	I-2159	1.2160	1.2161	1.2162	1.2163	I.2164	1.2165	I.2166

Table 308

CH ₂ OH O −CH ₂ C≡CMe	CH2OH O -CH2CaH1-4-Me	F 0 -CH2CH=CMe2	$F \qquad O \qquad -(CH_2)_2CH = CMe_2$	F 0 -CH2CH=CC12	F 0 −CH2C≡CMe	F 0 -CH2C6H4-4-Me	OH O -CH2CH=CMe2	OH $O = (CH_2)_2CH = CMe_2$	OH 0 -CH2CH=CC12	OH OCH2C≡CMe	OH 0 -CH2C6H4-4-Me	OMs O -CH2CH=CMe2	OMs O $-(CH_2)_2CH = CMe_2$	OM8 0 -CH2CH=CCl2	OM ₈ O −CH ₂ C≡CMe	OMs O -CH ₂ C ₆ H ₄ -4-Me	COOH O -CH2CH=CMe2	COOH O $-(CH_2)_2CH = CMe_2$	COOH O -CH2CH=CCl2	COOH O CHICECM
Н	Н	H	H				_	_	_		4	_	_		_					_
<u> </u>	Н	Ξ	Ŧ	н Н	Н	Н	H	H	Н	H	Н	H	Н	н	н	н	H	H	Н	H
	=	Ξ	H	Н	=			H	H	H	-	H	H	H	H	H	Н	H	H	Ξ
=	Н	Н	H	Н	11	H	НО	ОН	ОН	ОН	ОН	HO	НО	НО	ОН	ОН	ОН	ОН	ОН	HO
OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	OMe	OMe
OMe	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	OMe	OMe	OM _o
=	=	Н	Н	н	=	н	Œ,	F	Ŀ	Ŧ.	<u>-</u>	-	Œ	<u>F</u> .	Œ,	(<u>r</u> ,	Ŀ	Œ	Œ.	()
Ξ	=	Н	Н	Н	11	Н	Н	Н	Н	Н	Ξ	=	Н	Η	Ή	Ή	H	프	H	Ħ
Ξ	Ξ	Н	Н	Н	Н	Н	Н	н	Н	Н	Ξ	Ξ	H	H	·H	H	Н	H	H	Ħ
=	=	Н	· H	H	Н	H	Н	П	Н	Н	Ξ	=	Н	Н	Н	Н	Н	H	H	Ħ
=	Ξ	Н	Н	Н	11	Н	Н	П	Н	Н	Н	=	н	Н	Н	н	Н	Н	Н	н
HOOD	COOII	COOII	COOH	COOH	COOH	COOH	COOH	COOH	COOH	НООО	COOH	COOH	СООН	СООН	COOH	СООН	СООН	СООН	СООН	HOOD
1.2167	1.2168	1.2169	1-2170	1.2171	1.2172	1.2173	1.2174	1.2176	1.2176	1.2177	1.2178	1.2179	1.2180	1.2181	1.2182	1.2183	I.2184	1.2185	1.2186	1 9 1 9 7

Table 309

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M-V- n o no-	- CH ₂ CH = CMe ₂	-(CH2)2CH = CMe2	-CH2CH=CCl2	CH2C≡CMe	-CH2C6H4-4-Me	-CH2CH=CMe2	-(CH ₂) ₂ CH=CMe ₂	- CH2CH=CCl2	-CH2C≡CMe	-CH2C6H4-4-Me	-(CH ₂) ₂ CH=CMe ₂	-(CH2)2CH = CMe2	$-(CH_2)_2CH = CMe_2$	$-(CH_2)_2CH = CMe_2$	$-(\mathrm{CH}_2)_2\mathrm{CH} = \mathrm{CM}_{62}$	- CH ₂ CH = CMe ₂	-CH2C6H6	- CH ₂ CH=CMe ₂	- CH2C6H6	-01-0-III-
١) 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	CHZOII	СН2ОН	СН2ОН	CH2OH	СН2ОН	H	F	F	A	£	OMs	OMs	ОМв	ОМв	OMB	ОН	ОН	NH2	NH2	no
Lª	=	H	Н	Н	H	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	н	þ
2	=	×	н	Н	Ξ	Н	Н	H	H	Н	Н	Н	Н	Н	H	Н	Н	Н	H	Þ
=	=	н	Н	Ξ	П	Н	Н	Н	Н	Н	Н	Н	NO ₂	Н	Ш	Н	Н	н	H	ב
100	4	но	ОН	IIO	OH	НО	НО	НО	НО	ОН	Н	11	Н	H	Н	ОМв	ОМв	ОМв	ОМв	пО
, WO		OMe	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	ОМе	оМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	Ġ.
OMO.	OMe	OMe	OMe	ОМе	ОМе	OMe	ОМе	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe	OMO
5		સ	Œ		~	<u>-</u> -	ᄕ	Œ,	Œ,	H	Н	н	Н	Н	=	Ξ	H	Н	H	Ę
=	=	=	Ξ	Н	Ξ	Η	Ħ	Ξ	Н	Н	Н	Н	Н	Н	Н	Н	Ξ	H	Ξ	´ ;=
=	=	=	Ξ	Ξ	Ξ	=	H	Ξ	王	H	H	11	Н	H	Н	H	H	н	포	1
Ξ	1=	=	=	=	=	=	Ξ	Ξ	Н	Н	Ħ	=	Н	Η	Ξ	=	H	H	Ξ	Ξ
=	=	=	Ξ	Ξ	==	Ξ	Ξ	=	H	Н	Ξ	NO2	Н	Н	CN	H	Н	Н	Ξ	7
HOOD	HOOD	пооз	СООН	СООН	11000	COOII	СООН	нооэ	соон	соон	NO.	ОМв	OMs	CN	ОМв	ЮН	ЮН	ОН	НО	НО
1.9188	1-2189	1-2190	1.2191	1.2192	1.2193	1.2194	1.2195	1-2196	1.2197	1.2198	1.2199	1.2200	1.2201	1.2202	1.2203	1.2204	1.2205	1.2206	1.2207	1.9908

Table 310

O -CH ₂ CH=CMe ₂	O -CH2C6Hs	O -CH2CH=CMe2	O -CH2C6H6	0 -CH ₂ CH=CMe ₂	O -CH2CH=CMe2	O -CH2C6H8	O -CH2CH=CMe2	O -CH2C6H6	O -CH2CH=CMe2	O -CH2C6Hs	O -CH2CH=CMe2	O -CH2C6H6	0 -CH ₂ CH=CMe ₂	O -CH2C6H6	0 -CH2CH=CMe2	OCH ₂ C ₆ H ₆	0 -CH2CH=CMe2	O -CH2C6H6	O -CH ₂ CH-CMe ₂	O -CH2C6Hs
NH2	ОН	NH2	NH2	IIO	NIIz	NH2	ОН	ОН	NH2	NH2	ОН	НО	NH2	NH³	НО	НО	NH²	NH2	НО	ОН
Ή	Ξ	Ξ	Ξ	Ξ	=	H	H	H	H	Ξ	Ξ	H	H	Ħ	Ħ	H	н	H	H	Н
=	Ξ	Ξ	Ξ	프	=	Ξ	Ξ	H	Ξ	Ξ	Ħ	H	H	Ξ	Ξ	Ξ	Ħ	H	Ħ	Н
Ξ	=	Ξ	Ξ	=	=	H	H	H	H	Н	Н	Н	Н	H	H	H	н	H	Ξ	Н
OII	Н	Н	Н	NH2	"IN	NH2	ОН	НО	ЮН	ОН	ОМв	ОМв	ОМв	OMB	ОН	НО	ЮН	ЮН	H	н
OBt	Me	Me	Me	ОМе	ОМе	ОМе	OMe	OMe	OMe	ОМе	OMe	OMe	ОМе	OMe	OEt	OEt	OEt	OEt	Me	Me
OMe	Me	Me	Me	ОМе	OMe	ОМе	OMe	OMe	ОМе	ОМе	OMe OMe	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	Me	Me
=	=	11	Ш	H	=	Н	Н	Н	Н	Н	11	Н	Н	Н	Н	Н	H	Н	Н	Н
=	H	Н	Н	H	=	Н	H	Н	Н	Н	H	Н	Н	. Н	H	H	Н	H	H	H
Ξ	Ξ	Н	H	Н	н	Н	Н	Н	Н	Н	Ħ	Н	Н	Н	H	H	Н	H	Н	Н
=	=	П	Ε·	H	=	H	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	Н
=	Ξ	Н	н	Ξ	Ξ	Н	H	Н	H	Н	Н	Н	Ħ	Н	Ħ	Ħ	Ħ	H	Ξ	E
IIO	OII	ЮН	HO	HO	OH	HO	HO	НО	НО	ЮН	OMs	OMs	OMs	OMB	OMs	OMs	OMs	OMs	OMB	OMe
1.2209	1.2210	1.2211	1.2212	1.2213	1.2214	1.2215	1.2216	1.2217	1.2218	1.2219	1.2220	1.2221	1-2222	1.2223	1.2224	1.2225	1.2226	1.2227	I.2228	1.2229

Table 311

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					_			_												
-CH2CH=CMe2	-CH2C6H6	-CH2CH=CMe2	$-CH_2CH = CMe_2$	-CH2C6H6	$-CH_2CH = CMe_2$	-CH2C6H6	$-CH_2CH = CMe_2$	-CH2C6H6	$-CH_2CH = CMe_2$	-CH2C6H6	-CH2CH=CMe2	-CH2C6H6	-CH2CH=CMe2	-CH2C6H6	-CH2CH=CMe2	-CH2C6H6	-CH2CH=CMe2	-CH2C6Hs	-CH2CH=CMe2	-CH2C6H6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NH2	NH2	ОН	NH2	NH2	ОП	ОН	NH2	NH2	ОН	ОН	NH2	NH2	ОН	ОН	NH2	NH2	ОН	ОН	NH2	NH2
Н	н	H	H	H	Н	H	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	H	H	H
H	H	H	Ξ	Ξ	11	Н	H	Н	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	H	Н
H	Н	=	=	=	==	=	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
Н	11	NH2	NH2	NH2	OH	ЮН	OH	ОН	ОМв	ОМв	OMs	OMs	ОН	ОН	НО	ОН	Н	Н	Н	H
Me	Me	ОМе	OMe	OMe	ОМе	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	OEt	OEt	OEt	OEt	Me	Me	Me	Me
Me	Me	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	ОМе	OMe	Me	Me	Me	Me
H	Н	H	11	H	Н	Н	Н	H	Н	н	H	Η	Н	Н	H	H	Н	Н	Н	Н
=	П	=	=	Ξ	=	Ξ	H	Н	Н	H	Н	Н	H	Н	Н	Н	Н	Н	Н	H
H	Н	=	=	Ξ	Н	. エ	=	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н
11	11	=	П	H	11	=	=	Н	H	=	Н	Н	H	Н	Н	Н	Н	Н	Н	Н
Ξ	П	П	Ξ	Ξ	11	=	H	Н	Н	Ξ	H	H	Н	Н	Н	Н	Н	Н	Н	Н
OMs	OMs	OMs	OMs	OMs	OMs	OMs	OMs	OMs	CF3	CF_3	CF_3	CF_3	CF3	CF_3	CF_3	CF_3	CF_3	CF3	CF_3	CF3
1.2230	1-2231	1-2232	1-2233	1.2234	1.2235	1.2236	1.2237	1.2238	1.2239	1.2240	1.2241	1.2242	I-2243	1-2244	1.2245	1.2246	1-2247	1.2248	1.2249	I.2250

Table 312

5

- CH ₂ CH = CMe ₂	-CH2C6H8	-CH2CH=CMe2	-CH2C6IIs	-CH2CH=CMe2	-CH2CoHs	-CH2CH=CMe2	-CH2C6H6	-CH2CH=CMe2	CH2C6H8	-CH ₂ CH=CMe ₂										
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
НО	ЮН	NH2	NH2	НО	НО	NH2	NH2	НО	НО	NH3	NH3	НО	НО	NH3	NH2	ЮН	НО	NH2	NH2	ОН
H	11	Н	. =	王	Ξ	Ξ	王	丰	Ξ	Ξ	Ή	Ξ	Ξ	H	Н	H	Н	Ħ	H	Ħ
H	Н	H	H	Ξ	Ξ	Ξ	Ħ	H	H	H	Ħ	Н	H	Н	H	Н	Н	H	H	H
Н	Н	Н	Ξ	=	Ή	H	H	н	н	H	H	н	Ħ	H	H	н	Η	Н	H	H
ZIIZ	NH2	NII2	NH2	НО	ō	ОН	НО	OMs	OMs	ОМв	OMB	НО	НО	ОН	ОН	н	=	Н	н	NH3
OMe	OMe	ОМе	ОМе	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	OMe	OEt	OEt	OEt	OEt	Me	Me	Me	Me	OMe
OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	ОМе	ОМе	OMe	ОМе	ОМе	ОМе	OMe	Me	Me	Me	Me	OMe OMe
Ξ	Ξ	=	Ξ	H	П	11	Н	Н	Н	Н	Н	Н	П	Н	Н	Н	Ξ	Н	Н	H
=	=	=	Ξ	H	11	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	н	Н	H	H
Ξ	=	=	=	=	H	Н	Н	Н	Ħ	Н	Н	Н	н	Н	н	H	Ξ	H	Н	H
Ξ	=	=	Ξ	=	=	Н	Н	H	=	H	Н	Ξ	H	Ξ	H	H	=	Ħ	H	Н
Ξ	=	Ξ	=	Ξ	=	Н	Н	H	Ħ	Ħ	Н	н	Ξ	Ξ	H	H	Ξ	H	н	Н
CF ₃	CF	CF3	CF3	CF3	CF3	CF3	CF3	NH3.	NH2	NH2	NH2	ZIIZ	NH2	NH2	NH2	NH2	Z Z	NH2	NH2	NH2
1.2251	1.2252	1.2253	1-2254	1.2255	1.2256	1.2257	1.2258	1.2259	1.2260	1.2261	1.2262	1.2263	1.2264	1.2265	1.2266	1.2267	1.2268	I-2269	1.2270	1.2271

Table 313

		710																		
H-O-HO-	Chichie	-CH2CH=CMe2	-CH2CH=CMe2	-CH2C6H6	-CII2CH=CMe2	-CH2C6H8	-CH2CH=CMe2	·(CH2)2CHMe2	Me	-CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂	Me	-CH2CH=CMe2	.CH2CH=CCI2	-CH2CH=CMe2	·(CH2)2CHMe2	Me	·CH2CH=CMe2
c	9 (0	0	0	0	0	HN	NH	NMe	0	0	HN	NH	NMe	0	0	HN	HN	NMe	0
3	10	ZHZ HZ	НО	110	NHz	NH2	OMe	ОМе	OMe	ОМе	OMe	Н	Н	н	Н	Н	OEt	OEt	OEt	OEt
2	:	H	Н	Н	Н	Н	Н	H	Н	Н	Н	ᄄ	[E.	도	F	F	Н	H	Ξ	Н
Ξ	:	= =	Н	Н	H	Н	Н	Н	Н	H	Н	Н	H	H	Н	H	Н	H	Ξ	Н
Ξ	:	Ξ Ξ	Н	П	П	н	Н	н	Н	Н	Н	Н	Н	H	H	F	H	н	Η	Н
			ОН	OH	ОН	OII	Н	H	Н	Н	н	Н	Н	н	H	H	H	н	H	Н
OMe		OMe		OMe	ОМе	ОМе	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me
OMo	OIMIC	OMe	OMe	OMe	OMe	ОМе	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me
Ξ	: :	= =	11	11	=	Η	Me	Μe	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me
=	= :	= =	=	Ξ	H	П	Н	Ξ	H	H	Η	Ξ	Н	H	Ξ	Ή	Ξ	H	H	H
		= =	Ξ	11	=	Ξ	Ξ	Ξ	H	Н	Η	Η	H	H	H	Ħ	Ξ	H	王	H
=		<u>₹</u>	=	H	=	H	F	F	Ŀ	币	Ŀ	드	(F	Œ	ഥ	Ŀ	Œ,	Œ	Œ	F
<u> </u> =	= :	= =	=	П	=	H	王	Ξ	H	H	H	Н	Н	H	H	Н	Ξ	Н	H	Н
ä	NIII.	i i	NIL	NH2	ZIN.	NII2	·NHCH2CH=CMe2	·NHCH2CH=CMe2	.NHCH2CH=CMe2	·NHCH2CH=CMe2	·NHCH2CH=CMe2	-NHCII2CH=CMe2	-NHCH2CH=CMe2	·NHCH2CH=CMe2	·NHCH2CH=CMe2	.NHCH2CH=CMe2	·NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2
[2	2 3	2 2	75	76	77	82	2	g	=	23	Ω.	Ξ	ζ.	ဖွ	12	<u>∞</u>	9	9	=	2

Table 314

CH=CMe ₂ H F H H H Me OMe OH H H H OMe NH CH=CMe ₂ H F H H H Me OMe OH H H H OMe NH CH=CMe ₂ H F H H H Me OMe OH H H H OMe OMe OH CH=CMe ₂ H F H H H Me OMe OH H H H M OMe OO CH=CMe ₂ H F H H H Me OMe OH H H F H N NH CH=CMe ₂ H F H H H Me OMe OH H H F H N NH CH=CMe ₂ H F H H H Me OMe OH H H F H OMe OO CH=CMe ₂ H F H H H Me OMe OH H H F H OM OO CH=CMe ₂ H F H H H Me OMe OH H H F H OO CH=CMe ₂ H F H H H Me OMe OH H H H F H OO CH=CMe ₂ H F H H H Me OMe OH H H H OO CH=CMe ₂ H F H H H Me OMe OH H H H OO CH=CMe ₂ H F H H H Me OMe OH H H H OO CH=CMe ₂ H F H H Me OMe OH H H H OO CH=CMe ₂ H F H H Me OMe OH H H H OO CH=CMe ₂ H F H H Me OMe OH H H H OO CH=CMe ₂ H F H H Me OMe OH H H H OO CH=CMe ₃ H F H H Me OMe OH H H H OO CH=CMe ₃ H F H H Me H Me OM OH OH H H H OO CH=CMe ₃ H F H H Me H Me OM OH OH H H H OO CH=CMe ₃ H F H H Me H Me OM OH H H H OO CH=CMe ₃ H F H H Me H Me OH OH H H H OO CH=CMe ₃ H F H H Me H Me OH OH H H H OO OH OH H H H OO CH=CMe ₃ H F H H Me H Me OH OH H H H OO OH OH H H H OO OH OH H H H OO OH OH	<u>Z</u>	-NHCH2CH=CMe2		-		国	Me	Me	Me	H	Ξ	트	크	OEt	0	CH2CH=CC12
11=CMe2 II F II II Me OMe OH II H Me OMe OH II H H OMe OM II II H OMe OM II II H OMe OM II II II II <th< td=""><td>-NIICH</td><td>LCH=CMe2</td><td>Ξ</td><td>Ę.</td><td>Ξ</td><td>Ξ</td><td>Η</td><td>Me</td><td>ОМе</td><td>НО</td><td>Ξ</td><td>H</td><td>H</td><td>OMe</td><td>H</td><td>-CH2CH=CMe2</td></th<>	-NIICH	LCH=CMe2	Ξ	Ę.	Ξ	Ξ	Η	Me	ОМе	НО	Ξ	H	H	OMe	H	-CH2CH=CMe2
H	·NIIC	H2CH=CMe2	Ξ	Œ,	Ξ	=	H	Me	OMe	HO	=	H	Ξ	OMe	HZ	-(CH ₂) ₂ CHMe ₂
H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	·NHC	H2CH=CMe2	H	뫈	Ξ	H	Η	Me	ОМе	НО	Ξ	Ή	Ξ	OMe	NMe	Me
11=CMe2 II II II Me OMe OIH II II Me OMe OIH II II Me OME OIH II II II II Me OME OIH II II II II Me OME OIH II II III NIH Me OME OIH II II NIH Me OME OIH II II NIH	·NHC	H2CH=CMe2	H	F	Ξ	Ξ	Ξ	ğ	ОМе	ЮН	Ξ	Ξ	프	OMe	0	-CH2CH=CMe2
H H H Me OMe OH H F H NH HI=CMe2 H F H H Me OMe OH H F H NH HI=CMe2 H F H H Me OMe OH H F H NMe H=CMe2 H F H H Me OMe OH H F H NMe H=CMe2 H F H H Me OMe OH H H H O H=CMe2 H F H H Me OMe OH H H H O H=CMe2 H F H H Me OMe OH H H H O O H=CMe2 H H H H H H H H H D O O	NIN.	113CH=C:Me2	Ξ	મ	=	Ξ	=	Œ	ОМе	НО	=	=	Ξ	ОМе	0	.CH2CH=CCl2
HECME2 H F H H Me OME OH H F H NME HECME2 H F H H Me OME OH H F H NME HECME2 H F H H Me OME OH H F H OD HECME2 H F H H Me OME OH H H F H OD HECME2 H F H H Me OME OH H H H OD HECME2 H F H H Me OME OH H H H DO HECME2 H F H H Me OME OH H H H DO HECME2 H F H H Me OME OH H H H <td>NHC</td> <td>H2CH=CMe2</td> <td>Н</td> <td>F</td> <td>Н</td> <td>Н</td> <td>Н</td> <td>Me</td> <td>ОМе</td> <td>ЮН</td> <td>Н</td> <td>Ξ</td> <td>Ŀ</td> <td>н</td> <td>HN</td> <td>-CH2CH=CMe2</td>	NHC	H2CH=CMe2	Н	F	Н	Н	Н	Me	ОМе	ЮН	Н	Ξ	Ŀ	н	HN	-CH2CH=CMe2
H = CMe2 H = F H = H H = Me OME OH H = F H = Me OME OH H = F H = Me OME OH H = F H = F H = Me OME OH H = F H = F H = Me OME OH H = H = F H = Me OME OH H = H = F H = Me OME OH H = H = H = F NH OME OH H = H = H = F NH OME OH H = H = H = F NH OME OH H = H = F NH OME OME OH H = H = F NH OME OME OH H = H = F NH OME OME OH H = H = F NH OME OME OH H = H = F NH OME OME <th< td=""><td>) IN.</td><td>H2CH=CMe2</td><td>Ξ</td><td>Ŀ</td><td>H</td><td>Ξ</td><td>Н</td><td>Me</td><td>ОМе</td><td>НО</td><td>H</td><td>H</td><td>Œ,</td><td>H</td><td>HN</td><td>-(CH₂)₂CHMe₂</td></th<>) IN.	H2CH=CMe2	Ξ	Ŀ	H	Ξ	Н	Me	ОМе	НО	H	H	Œ,	H	HN	-(CH ₂) ₂ CHMe ₂
H = CMe2 H = F H = H H = Me OME OH H = F H = P H = OME OH H = F H = P H = OME OH H = F H = P H = OME OH H = H H = OME OH H = OME OH	NHO.	:H2CH=CMe2	Н	F	H	Ħ	Н	Me	OMe	НО	Н	H	Œ,	H	NMe	Me
H F H H Me OMe OH H F H H Me OMe OH H H H H H Me OMe OH H H H OE NH H=CMe2 H F H H H Me OMe OH H H H OE NH H=CMe2 H F H H H Me OMe OH H H H OE OH H=CMe2 H H H Me OMe OH H H H OE	NHO.	H2CH=CMe2	Н	Ŀ	н	Ħ	н	Me	OMe	ЮН	H	H	Œ,	Н	0	-CH2CH=CMe2
HECMe2 H F H H Me OMe OH H H H Me OMe OH H H H Me OMe OH H H H OE NH H=CMe2 H F H H H Me OMe OH H H H OE O H=CMe2 H F H H Me OMe OH H H H OE O H=CMe2 H H H Me OMe OH H H H OE O H=CMe2 H H H Me OMe OH H H H OE O H=CMe2 H H H Me Me OH H H H OMe OH NH H=CMe2 H H H Me Me OH H) HN-	H2CH=CMe2	H	F	H	H	Н	₩	OMe	НО	H	Ξ	Ŀ	Н	0	.CH2CH=CCl2
H = CMe2 H H H Me OMe OH H H Me OMe OH H H H OR NMe H = CMe2 H H H H Me OMe OH H H H OE O H = CMe2 H H H Me OMe OH H H H OE O H = CMe2 H H H Me OMe OH H H H OMe NH H = CMe2 H H Me H Me OH H H H OMe NH H = CMe2 H H Me H Me OH H H H OMe NH H = CMe2 H H Me H Me OH H H H OMe NH H = CMe2 H H H H<	N.	SH2CH=CMe2	Ξ	4	Ξ	=	H	Me	OMe	IIO	Η	H	Ξ	OEt	E	.CH2CH=CMe2
H = CMe2 H H H Me OMe OH H H Me OMe OH H H OBt OO H = CMe2 H H H H Me OMe OH H H H OBt O H = CMe2 H H H Me OMe OH H H H OMe OH H = CMe2 H H Me H Me OH H H H OMe NH H = CMe2 H H Me H Me OH H H H OMe NH H = CMe2 H H Me H Me OH H H H OMe NH H = CMe2 H H Me H Me OH H H H OMe OH NH H OMe OH OH H H<	.NHC	CH2CH=CMe2	H	F	Н	H	Н	Me	OMe	НО	Н	Ħ	Ξ	OEt	NH	-(CH ₂) ₂ CHMe ₂
H = CMe2 H H H Me OMe OH H H DE O H = CMe2 H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H H	HN	CH2CH=CMe2	H	F	Н	Ħ	H	Жe	ОМе	ЮН	Н	Ξ	Ξ	OEt	NMe	Me
CH=CMe ₂ H F H H Me H Me OMe OH H H H OBt OF OH CH=CMe ₂ H F H H Me H Me OH H H H H OME NH CH=CMe ₂ H F H H Me H Me OH H H H H OME NH CH=CMe ₂ H F H Me H Me OH H H H H OME NME CH=CMe ₂ H F H Me H Me OH H H H OME OH H H H OME OH CH=CMe ₂ H F H Me H Me OH H H H OME OH OH OH OME OH	HN-	CH2CH=CMe2	Н	뇬	H	Ξ	H	Me	ОМе	НО	Н	H	三	OEt	0	-CH2CH=CMe2
CH=CMe ₂ H F H H Me H Me OH H H H OMe NH CH=CMe ₂ H F H H Me H Me OH H H H OM NME CH=CMe ₃ H F H H Me H Me OH H H H OM NME OH CH=CMe ₃ H F H M Me H Me OH H H H OM OM OH CH=CMe ₃ H F H M Me H Me OH H H H OM OM OH OH CH=CMe ₃ H F H M Me H Me OH H H H H OM OM OH	H	CH2CH=CMe2	H	F	H	Ξ	Ξ	Me	OMe	НО	Н	H	Ξ	OEt	0	-CH2CH=CCl2
CH=CMe ₂ H F H H Me H Me OH H H H OMe NH CH=CMe ₂ H F H H Me H Me OH H H H H OMe NMe CH=CMe ₃ H F H H Me H Me OH H H H OMe O OH CH=CMe ₃ H F H H Me H Me OH H H H OMe O	-NH(CH2CH=CMe2	Н	F	Н	Ξ	Me	H	Me	НО	Н	H	H	OMe	HN	-CH2CH=CMe2
CH=CMe ₂ H F H H Me H Me OH H H H OMe NMe CH=CMe ₂ H F H H Me H Me OH H H H OME O CH=CMe ₂ H F H H Me H Me OH H H H OME O	HN-	CH2CH=CMe2	H	Ŀ	H	H	Me	H	Me	НО	Н	Ħ	Ħ	OMe	HN	-(CH ₂) ₂ CHMe ₂
CH=CMe ₂ H F H H Me H Me OH H H H OMe O CH CH=CMe ₂ H F H H Me H Me OH H H H OMe O	NHO-	H2CH=CMe2	H	Έ	H	Ξ	Me	H	Me	НО	Н	H	Ξ	OMe	NMe	Me
CH=CMe2 H F H H Me H Me OH H H H H OMe O	·NHC	H2CH=CMe2	H	œ,	Ξ	Ξ	Me	H	Me	НО	Н	Ħ	H	OMe	0	-CH2CH=CMe2
	.NHCH2	H2CH=CMe2	Н		H	H	Me	H	Me	ЮН	Н	H	H	OMe	0	.CH2CH=CCl2

CH2CH=CMe2

CH2CH=CCl2

(CH2)2CHMe2

Me

CH2CH=CMe2

CH2CH=CMe2

CH2CH=CCl2

-(CH2)2CHMe2

CH2CH=CMe2

-CH2CH=CCl2 -CH2CH=CMe2

CH2CH=CMe2

Table 315

-CH2CH=CMe2 -(CH2)2CHMe2 CH2CH=CMe2

CH2CH=CCl2

CH2CH=CMe2

(CH2)2CHMe2

Me

5	
10	

15

20

25

30

35

40

45

50

NMe NMe NMe 핅 NH HN HN HZ H HN H 0 0 0 0 0 0 0 OMe OMe OMe OMe OMe OEt OEt OEt OEt OEt OE Ξ H I H H H 田 H Œ ഥ 1 Œ, ۲z, I Ξ H H H Ξ H H H Ŀ Œ, Ē4, Ξ I H I Ξ H Ξ H H Ξ H H H Ξ Ξ H H H H Ξ I Ξ Н Ή Ξ Н Н H Н Ξ Ξ H H 피 H H F HO ОН НО Me Me HO HO Me Me HO OH OH Me Me Me Me Me ₹ Me Ξ H Ξ Ξ H H H Ξ Me Æ Me Me Me Me Me Me Me Me H H Ξ 工 H H H H Ξ H H I Ξ H Ξ Ξ Ξ Ξ H Ξ I H H H H H H H Ξ H Ξ H H Ξ H Ξ Ξ H Ξ. <u>~</u> ت تعا Œ, Έ., Œ, Œ Œ, Œ, <u>-</u> Œ, Ŀ Œ, Œ, Œ, ſ۲, Œ, Ξ Ξ \equiv Ξ H Ξ H = H I H H H H .NHCH2CH=CMe2 NHCH2CH=CMe2 NHCH3CH=CMe2 .NHCH2CII=CMe2 -NHCH2CH=CMe2 -NHCH2CII=CMe2 .NHCH2CH=CMe2 -NHCH2CII=CMez -NHCH2CH=CMe2 .NHCH2CH=CMe2 -NHCH2CII=CMe2 .NHCH2CH=CMe2 NHCH2CII=CMe2 NHCH2CH=CMe2 .NHCH2CH=CMe2 -NHCH2CH=CMe2 NIICH2CH=CMe2 -NHCH2CH=CMe2 NHCH2CH=CMe2 -NHCH2CH=CMe2 .NHCH2CH=CMe2 1-2339 I-2335 1-2336 1-2337 -2334 1.2340 I-2342 1-2343 1.2344 [-2345]1-2346 1-2348 I-2349 1-2350 I-2341 1-2347 1.23521.2353I-2354 1-2361

Table 316

II II Me Me		او ا		Me			H	OEt	HE	-(CII2)2CHMe2
II II Me Me		9	2	Me	=	田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	王	OEt	NMe	Me
H H Me Me		و	2	Me	=	H	王	OEt	0	-CH2CH=CMe2
H Me Me		le	2	Me	H	H	H	OEt	0	-CH2CH=CCl2
II II OMe OEt		Ę	9	OH	H	H	田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	ОМе	HN	-CH2CH=CMe2
II II OMe OEt		亞	٦	110		田田	H	OMe	HN	-(CH2)2CHMe2
H II OMe OEt		豆		ОН	=	Ξ	H	ОМе	NMe	Me
H H OMe OEt	OMe OEt	Et	0	ОН	H	Н	H	ОМе	0	.CH2CH=CMe2
H H OMe OEt		亞	٩	ОН	Ξ	H	H	ОМе	0	·CH2CH=CCl2
H H OMe OEt		色		ОН	H	H	Ŀ	Н	NH	-CH2CH=CMe2
H H OMe OEt	1	亞		ОН	Ξ	H	<u>-</u>	H	NH	·(CH2)2CHMe2
H H OMe OEt	OMe OEt	斑	0	ОН	H	H	Œ,	Н	NMe	Me
II II OMe OEt		亞	٥	OH	=	H	ſĿ,	11	0	.CH2CH=CMe2
H H OMe OEt		百	0	ОН	H	H	된	н	0	-CH2CH=CCl2
H H OMe OEt	OMe OEt	臣	0	ОН	H	H	H	OEt	HN	-CH2CH=CMe2
H H OMe OEt	1	臣	9	ОН	H	H	H	OEt	HN	-(CH ₂) ₂ CHMe ₂
H H OMe OEt		茁	0	ОН	H	H	H	OEt	NMe	Me
H H OMe OEt	1	豆	٩	ОН	H	H	H	OEt	0	-CH2CH=CMe2
H H OMe OEt		邑	9	ОН	H	H	H	OEt	0	-CH2CH=CCl2
H Me Me Me	-	e		H	H	H	표	OMe	HN	.CH2CH=CMe2
H Me Me Me		<u>e</u>	_	H	H	Ξ	H	OMe	NH	·(CH2)2CHMe2

Table 317

10	Me	.CH2CH=CMe2	.CH2CH=CCl2	-CH2CH=CMe2	·(CH2)2CHMe2	Me	-CH2CH=CMe2	.CH2CH=CCl2	-CH2CH=CMe2	·(CH ₂) ₂ CHMe ₂	,
	NMe	0	0	HN	NH	NMe	0	0	HN	NH	
15	OMe	OMe	OMe	Н	Н	Ξ	Н	Н	OEt	OEt	
	н	H	Н	£4	Ŀ	2	Ŀ	Œ	н	H	
20	Н	Н	Н	Н	Н	=	Н	Н	H	Н	!
	Н	н	Н	Н	Н	=	Н	H	H	Ξ	
25	П	П	Н	11	H	11	Н	Н	Н	Н	
	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	
30	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	
	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	
35	H	=	Н	H	Н	Н	H	Н	П	П	
	Ξ	=	H	H	Ξ	=	Н	Н	H	H	
	-	<u>-</u>	ت.	-	<u>.</u>	=	<u>-</u>	땬	Œ	~	
40	Ξ	Ξ	Ξ	Ξ	Ξ	=	H	H	H	Ξ	

	Me	.CH2CH=CMe2	.CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	-CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	.CH2CH=CMe2	CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	-CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me
		.CH2C	.CH2	-CH2C	.(CH2		-CH2C	·CH20	-CH2C	-(CH2		-CH2C	.CH20	-CH2C	-(CH2		-CH2C	.CH20	-CH2C	-(CH2	
	NMe	0	0	HN	HN	NMe	0	0	HN	NH	NMe	0	0	HN	HN	NMe	0	0	HN	HN	NMe
	OMe	OMe	OMe	Н	H	=	н	Н	OEt	OEt	OEt	OEt	OEt	OMe	ОМе	OMe	OMe	OMe	H	H	Н
	Н	Н	Н	F	দ	2	Ŀ	۲٦	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Œ,	দ	Œ
	н	Н	Н	Н	Н	=	Ή	Н	H	Н	Н	Н	Н	Н	Н	Н	н	Н	Н	Н	Н
	Ξ	H	Н	Н	H	=	H	Η	H	Ξ	H	н	Н	Н	H	H	H	н	H	Ξ	Ξ
	H	II	Н	11	Н	11	H	Н	Н	Н	H	Н	Н	но	НО	НО	НО	ОН	НО	НО	ЮН
	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	οМе	OMe	OMe	OMe	OMe	OMe	OMe	Me OMe
į	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me
	Me	Me	Me	Me	Me	Mc	Me	Me	Me	Me	Me	Me	Me	Н	Н	Н	Н	Н	Н	Н	Н
į	Н	=	Н	Ξ	H	=	H	Н	П	П	Н	H	Ξ	Ħ	Н	H	Н	H	H	H	Н
	Н	=	Ξ	Ξ	Ξ	=	Ξ	н	H	=	Н	Н	王	≖	H	Н	Н	Ξ	田	Ξ	H
	~	드	Œ	=	<u>e</u>	=	£.,	(z.	Œ	<u>~</u>	ᄕᅩ	ഥ	-	Œ	伍	면	[F	드	Ŀ	E,	Œ
	=	=	Ξ	Ξ	Ξ	=	Ξ	Ξ	Ξ	Ξ	Ξ	H	Ξ	H	H	Ξ	Ξ	Ξ	三	H	Ξ
	ÎN.	N.	.NI.	.NH2	.IIN.	.IN.	FIN.	.NI.	.NII.	~IIN-	.NH2	"HN"	-IIN-	.NH2	.NH2	-NH2	.NH2	.NH2	.NH2	-NH2	·NH2
	.2376	-2377	-2378	-2379	1.230	1887	.2382	.2383	-2384	-2385	-2386	.2387	-2388	-2389	.2390	.2391	-2392	.2393	-2394	2395	-2396

Table 318

- 1												[•		OH OH-OW
	, IN.	Ξ	<u>-</u>	=	=	Ξ	Me	OMe	HO	=	=	-	F		-CH2CH-CM62
	FIZ:	H	2	Ξ	Н	н	Me	ОМе	НО	표	H	F	H	0	-CH2CH=CCl2
	il	Ξ	í-	Ξ	H	Н	Me	OMe	НО	H	Н	H	OEt	HN	-CH2CH=CMe2
	NH2	Ξ	12	H	H	Н	Me	OMe	ОН	Н	H	H	OEt	HN	-(CH ₂) ₂ CHMe ₃
	-NII.	Ξ	~	Ξ	Н	H	Me	OMe	НО	H	H	Н	OEt	NMe	Me
	. IIV.	=	<u>-</u>	=	=	Ξ	Me	OMe	011	=	Η	Ξ	OEt	0	-CII2CII=CMe2
1	FIZ.	Ξ	GE.	Ξ	=	=	Me	OMe	ОН	Н	Ξ	Η	OEt	0	.CH2CH=CCl2
	i z	Ξ	Œ	Ξ	Ξ	Me	Н	Me	ОН	Н	H	Н	ОМе	HN	-CH2CH=CMe2
1	il.	Ξ	<u></u>	=	=	Me	H	Me	ОН	Н	H	Н	ОМе	HN	-(CH2)2CHMe2
1	.IN.	Ξ	Ŀ	H	Ξ	Me	Н	Me	ОН	Н	Ή	Н	ОМе	NMe	Me
1	, HN	H	[E	H	H	Me	Н	Me	ОН	Н	H	н	OMe	0	-CH2CH=CMe2
1	i N	Ξ	[=	Ξ	Ξ	Me	Ξ	Me	НО	Н	н	Н	ОМе	0	.CH2CH=CCl2
1		Ξ	2	=	=	Me	=	Me	Ю	н	Н	F	=	NH	.CH2CH=CMe2
-	FIN.	Ξ	. E	Ξ	H	Me	H	Me	но	Н	Н	F	H	NH	-(CH ₂) ₂ CHMe ₂
1	, HN	Ξ	ſ±	Ξ	H	Me	H	Me	НО	H	Н	Œ	H	NMe	Me
	÷ N	Ξ	GE.	H	H	Me	H	Me	ОН	Н	Н	Œ	H	0	-CH2CH=CMe2
1	HZ.	Ξ	E	Ξ	Ξ	Me	Ħ	Me	ОН	H	H	Œ,	H	0	.CH2CH=CCl2
1	HN.	Ξ	Œ	Ξ	H	Me	Ħ	Me	ОН	Н	н	H	OEt	H	-CH2CH=CMe2
	NH3.	Ξ	<u> </u>	田	H	Me	Ħ	Me	НО	н	Ξ	Ξ	OEt	Ħ	-(CH ₂) ₂ CHMe ₂
i	"HN.	ᄪ	G.	Ξ	Ħ	Me	Н	Me	ЮН	H	Ξ	三	OEt	NMe	Me
1	.NH2	田	Œ	Ή	Н	Me	Н	Me	ОН	Ħ	티	H	OEt	0	.CH2CH=CMe2
1.237	ZIINI:	:	4												

Table 319

5	-CH2CH=CCl2	.CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂	Me	.CH2CH=CMe2	-CH2CH=CCl2	.CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂	Me	-CH2CH=CMe2	.CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	-CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	·(CH ₂) ₂ CHMe ₂	Me	-CH2CH=CMe2	CH2CH=CCl3
10	0	HN	HZ	NMe	0	0	HN	HN	NMe	0	0	HN	HN	NMe	0	0	HN	HN	NMe	0	0
15	OEt	OMe	ОМе	OMe	ОМе	ОМе	Н	Н	Н	Н	н	OEt	OEt	OEt	OEt	OEt	ОМе	ОМе	ОМе	ОМе	OMe
	Н	Н	H	Ξ	H	Н	Ŀ	Ŀ	[24	Œ,	F	Н	H	H	Н	H	Н	Ή,	Н	Н	H
20	Н	Н	H	H	H	Н	H	Н	Н	Н	Н	Н	Н	Н	Н	11	Н	Н	Н	Н	Ξ
	Н	Ξ	H	Η	Ξ	Ξ	=	H	Н	Н	H	Н	Н	Н	Н	=	Н	H	H	Н	Ħ
25	НО	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	ОН	ОН	ОН	ОН	HO
	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	OEt	OEt	OEt	OEt	OFF
30	=	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	OMe	ОМе	ОМе	OMe	OMe OF
	Me W	=	П	н	11	П	=	н	н	Н	Ħ	H	Н	Н	н	П	Н	H	Ξ	н	п
35	=	=	=	=	H	=	Ξ	Ξ	Ξ	王	王	Ξ	Н	н	н	=	H	田	=	=	ח
	E	=	=	=	Ξ	=	=	王	田	王	Ξ	F	H	H	H	=	H	Ξ	Ξ	=	/ 🗈
	-	=	F	~	2-	<u> </u>	H F	~	H	F.	<u> </u>	<u>-</u>	H F	1 F	H F	H F	H	H	H F	HF	0
40	=	=		=	=	=	-	Ξ	-	王	H	Ξ		H		_		-	_		-
45	î Z	ĨZ.	IN.	ĨZ.	ĨZ.	ÄIX.	II.	, IIN.	-NH2	NH2.	·NH2	IZ.	.NH2	.NH2	NH2	IN.	.NH2	-NH2	.IIX.	IN.	MIL
	a i) <u>s</u>) <u>5</u>) 5) 5) §) <u>ş</u>	3 5) g	<u> </u>) 8) =) 22		3 2) <u>%</u>			

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Table 320

E 2	= =	===	= =	OMe	O E	HO	= =	H	E 5	= =	HN HN	·CH ₂ CH=CMe ₂ ·(CH ₂) ₂ CHMe ₂
=======================================	+-		1	-	OE	ЮН	Ξ	Ξ	F	Ŧ	NMe	Me
F Н Н			=	OMe	OEt	HO	=	Ξ	F	F	0	-CH2CH=CMe2
F H H	н		=	OMe	OEt	НО	=	H	Ŀ	H	0	.CH2CH=CCl2
F 11 11	-		=	OMe	OEt	OII	=	Η	=	OEt	HN	-CH2CH=CMe2
F H H	Н		H	OMe	OEt	HO	=	Ξ	H	OEt	HN	-(CH ₂) ₂ CHMe ₂
Р Н Н	H		H	OMe	OEt	Ю	프	H	н	OEt	NMe	Me
F H H	Н		Н	OMe	OEt	НО	Н	H	H	OEt	0	·CH2CH=CMe2
F H H	Н		Н	ОМе	OEt	НО	Ξ	H	H	OEt	0	-CH2CH=CCl2
н н н	-	_	Me	Me	Me	Н	Н	H	H	OMe	H	-CH2CH=CMe2
ннн	-	_	Me	Me	Ме	H	н	Н	Ξ	OMe	HN	·(CH ₂) ₂ CHMe ₂
н н н			Me	Me	Me	Н	H	H	H	OMe	NMe	Me
ннн	Н		Me	Me	Me	H	Н	Н	H	OMe	0	-CH2CH=CMe2
ннн		,,	Me	Me	Me	Н	Н	H	H	OMe	0	-CH2CH=CCl2
ннн	Н		Me	Me	Me	Н	H	H	ন	H	HZ	.CH2CH=CMe2
н н н	H		Me	Me	Me	Н	Н	Н	F	H	품	·(CH ₂) ₂ CHMe ₂
ннн	王		Me	Me	Me	Ħ	Н	Н	R	H	NMe	Me
н н н	-	1 ' '	Me	Me	Me	H	Н	Н	F	H	0	-CH2CH=CMe2
ннн	Н		Me	Me	Me	н	H	H	Œ	H	0	.CH2CH=CCl2
ннн	Ħ		Me	Me	Me	H	H	H	Н	OEt	HH	-CH2CH=CM62

Table 321

5	-(CH2)2CHMe2	Me	-CH2CH=CMe2	.CH2CH=CCl2	.CH2CH=CMe2	·(CII ₂) ₂ CHMe ₂	Me	.CH2CH=CMe2	.CH2CH=CCl2	-CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂	Me	.CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	·(CH ₂) ₂ CHMe ₂	Me	.CH2CH=CMe2	.CH2CH=CCl2	-CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂
	HZ	NMe	0	0	HZ	NH	NMe	0	0	NH	HN	NMe	0	0	HN	NH	NMe	0	0	HN	HE
15	OEt	OEt	OEt	OEt	ОМе	ОМе	ОМе	OMe	ОМе	Н	Н	H	Н	Н	OEt	OEt	OEt	OEt	OEt	OMe	OMe
	Н	Н	H	Н	Н	=	H	Н	Н	F	Ęź,	노	Œ,	Œ	H	H	Н	H	H	H	Н
20	Н	Н	Ħ	Н	Н	=	Ξ	н	H	H	H	H	Ξ	H	H	Н	H	H	Ħ	H	H
	Н	н	=	Н	11	=	H	H	н	Н	н	Ξ	H	田	H	H	Н	H	H	Ξ	H
25	Н	Н	11	Н	OH	IIO	НО	ОН	ОН	ОН	ОН	НО	ОН	НО	НО	НО	ОН	НО	ОН	НО	ЮН
	Me	Me	Me	Me	OMe	OMe	OMe	ОМе	OMe	ОМе	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	OMe	Me	Me
30	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	H	H
	Me	Me	Me	Me	H	==	Н	Н	Ξ	Н	Н	Н	н	H	H	Н	Н	Н	Н	Me	Me
35	Ξ	H	Н	Н	=	=	H	Н	=	Н	Н	H	Н	田	H	н	H	Н	Н	H	H
·	Ξ	Ξ	Н	Н	Ξ	н	Н	Н	Н	Н	Н	Н	Н	H	王	Н	н	Н	Н	Ξ	田
	Ξ	H	Н	Н	=	11	H	Н	Н	Н	Н	H	Н	Н	H	Н	Н	Н	Н	H	H
40	Ξ	Ξ	П	Ξ	Ξ	II	П	H	Н	H	Н	н	H	Н	Н	Н	H	Н	Н	H	Ξ
4 5	-NHCH2CH=CMe3	.NIICII2CII=CMe2					-NHCH2CH=CMe2		-NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2	.NIICIIzCII=CMez	.NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2	.NHCH2CH=CMe2	-NHCH2CH=CMe2	·NHCH2CH=CMe2
50	1.2360	1.2361	1.2362	1.2363	1.2364	1-2365	1.2366	I-2367	1.2:368	1.2369	1.2370	1-2371	1.2372	I-2373	I.2374	I-2375	1.2376	I-2377	1.2378	1.2379	I-2380

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Table 322

					\neg	Т	\neg	Т	П	1	7	Т	$\neg \tau$	Ţ	7	\neg	7	\neg	7	\neg
Me	-CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	-CH2CH=CMe2	.CH2CH=CCl2	.CH2CH=CMe2	·(CH ₂) ₂ CHMe ₂	Me	.CH2CH=CMe2	CH2CH=CCl2	-CH2CH=CMe2	-(CH ₂)2CHMe ₂	Me	.CH2CH=CMe2	.CH2CH=CCl2	.CH2CH=CMe2	·(CH2)2CHMe2	Me
NMe	0	0	NH	NH	NMe	0	0	NH	HN	NMe	0	0	NH	HN	NMe	0	0	HN	HN	NMe
OMe	OMe	OMe	H	=	H	=	H	OEt	OEt	OEt	OEt	OEt	OMe	OMe	OMe	OMe	ОМе	Н	H	H
H	11	H	Ŀ	G.	Ŀ	2	Œ,	H	H	H	н	H	Н	H	Ή	H	Н	Œ,	Ŀ	F
Н	11	Н	Н	H	Ξ	Н	Н	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	н
11	H	11	Η	H	H	Ξ	Н	Н	Н	Н	Н	Н	Н	H	Н	H	H	Ħ	Ξ	H
НО	OH	OH	OII	ЮН	011	OII	ЮН	ОН	ОН	ОН	ОН	ОН	Me	Me	Me	Me	Me	Me	Ме	Me
Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me
Ξ	II	11	11	11	11	П	Н	Н	Н	Н	Н	Н	Me	Me	Me	Me	Me	Me	Me	Me
Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Мe	Me	Me	H	Н	Н	Н	Н	Н	н	Н
Ξ	=	=	11	Н	Ξ	11	Н	Н	Н	Н	Н	H	Н	Н	Н	Н	Н	Н	Н	Н
=	=	Ξ	=	H	II	П	Н	Н	Н	H	Н	H	Н	Н	Н	Н	Н	Н	Н	H
=	=	Ξ	Ξ	Ξ	Η	Н	H	H	н	H	Н	==	Н	Н	Н	Н	Н	Н	Н	H
Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	H	Ξ	Н	=	H	Н	Ξ	H	Ξ	Ξ	Ξ	H
-NHCH2CH=CMe2					.NIICHECH=CMez	.NHCH2CH=CMe2	-NIICH2	ł		.NHCH2CH=CMe2	NIICH2	NICIE	.NHCH2(.NHCH2(NHCII2	.NHCH2CH=CMe2	.NHCH2(-NHCH26	.NIICH2CH=CMe2	.NHCH2(
1.2381	1.2:182	1.2383	1.2384	1.2385	1.236	1-2387	1.2388	1.2389	1.2390	1.2391	1.2392	1.2393	1.2394	1.2395	1.2396	1.2397	1-2398	1.2399	1.2400	1.2401

Table 323

_													
5	.CH2CH=CMe2	.CH.CH=CCl.	-CH2CH=CMe2	-(CH2)2CHMe2	Me	.CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	·(CH ₂) ₂ CHMe ₂	Me	-CH2CH=CMe2	.CH2CH=CCl2	
	0	0	HN	HN	NMe	0	0	HN	HN	NMe	0	0	
15	H	H	OEt	OEt	OEt	OEt	OEt	ОМе	ОМе	ОМе	OMe	ОМе	
	íz,	Դ	Ξ	H	Н	Н	H	Н	Ή	Н	Н	Н	
20	Н	Ξ	Ή	Н	н	Н	Н	Н	Н	Н	Н	Н	
•	Н	=	Н	Н	Н	Н	H	H	Н	Н	Н	Н	
25	Me	Me	Me	Me	Me	Me	Me	ОН	ОН	ОН	ОН	НО	
	Me	Me	Me	Me	Me	Me	Me	OEt	OEt	OEt	OEt	OEt	
30	Me	Me	Me	Me	Me	Me	Me	ОМе	ОМе	OMe	ОМе	OMe	
	И	Н	н	Ξ	Н	Ξ	Н	H	Н	Н	Н	H	
35	=	11	=	=	Ξ	Ξ	Н	П	Н	Н	Н	H	
	Η	Ξ	Η	H	Ξ	Ξ	Н	II	Н	Н	Н	Ħ	I
	Ξ	=	Ξ	=	王	Ξ	Ξ	11	Ξ	H	H	Ξ	ł
40	Ξ	Ξ	Ξ	=	Ξ	=	Ξ	=	Ξ	프	H	Ξ	-
	Me	Mez	Mez	Me ₂	Mez	Mez	Mez	Me ₂	Me	Mez	Mez	Me	

1.2402	·NHCH2CH=CMe2	Ξ	Ξ	Ξ	=	=	Me	Me	Me	Ξ	Œ	F	H	0	·CH2CH=CMe2
.2403	-NHCH2CH=CMe2	Ξ	=	=	=	=	Me	Me	Me	=	H	ત	H	0	·CHzCH=CClz
1.2404	.NHCH.CH=CMe2	E	=	Ξ	=	=	Me	Me	Me	Ħ	Ξ	Н) IOEt	HN	-CH2CH=CMe2
.2405	.NICH-CHECMe.	=	=	=	=	=	Me	Me	Me	=	Ħ	Ξ	OEt	NH	-(CH2)2CHMe2
.2406	·NIICH,CH=CMe2	Ξ	Ξ	=	Ξ	Ξ	Me	Me	Me	×	≖	Н	OEt	NMe	Me
1.2407	·NHCH2CH=CMe2	=	=	Ξ	=	=	Me	Me	Me	=	Н	Н	OEt	0	.CH2CH=CMe2
1.2408	.NHCH2CH=CMe2	Ξ	Ξ	=	Ξ	Ξ	Me	Me	Me	H	н	Ξ	OEt	0	-CH2CH=CCl2
1.2409	.NHCH2CH=CMe2	Ξ	=	=	=	Н	ОМе	OEt	ОН	H	Ξ	H	ОМе	HN	-CH2CH=CMe2
1.2410	.NHCH2CH=CMe2	Ξ	Ħ	н	Ξ	Н	OMe	OEt	но	Н	Н	Н	ОМе	NH	-(CH2)2CHMe2
1.2411	.NHCH2CH=CMe2	Ξ	Ξ	H	Н	Н	OMe	OEt	НО	Н	н	Н	OMe	NMe	Me
1-2412	.NHCH2CH=CMe2	Ξ	Ξ	H	H	H	OMe	OEt	НО	Н	Н	Н	ОМе	0	-CH2CH=CMe2
.2413	.NHCH2CH=CMe2	Ξ	Ξ	Ξ	王	H	OMe	OEt	но	Н	Н	Н	OMe	0	.CH2CH=CCl2
-2414	.NHCHzCH=CMe2	田	Ξ	H	H	Ξ	OMe	OEt	но	Н	Н	F	Н	HN	.CH2CH=CMe2
[-2415	.NHCH2CH=CMe2	Ξ	Ξ	H	H	Н	OMe	OEt	но	Н	Н	स	Ħ	NH	-(CH ₂) ₂ CHMe ₂
.2416	.NHCH2CH=CMe2	Ξ	Ξ	H	Н	Н	OMe	OEt	но	н	Н	F	Н	NMe	Me
-2417	.NIICH2CH=CMe2	Ξ	Ξ	Ξ	Ξ	Н	OMe	OEt	но	Н	Н	F	H	0	.CH2CH=CMe2
1.2418	.NHCH2CH=CMe2	Ξ	Ξ	H	H	Н	OMe	OEt	НО	Н	Н	F	н	0	.CH2CH=CCl2
1.2419	.NHCH2CH=CMe2	Ξ	Ξ	Ħ	H	Н	ОМе	OEt	но	Н	н	H,	OEt	NH	-CH2CH=CMe2
1.2420	.NHCH2CH=CMe2	Ξ	Ħ	H	H	Н	ОМе	OEt	но	Н	Н	Н	OEt	NH	-(CH2)2CHMe2
1.2421	.NHCH2CH=CMe2	Ξ	Ħ	H	Н	Н	OMe	OEt	но	Н	Н	н	OEt	NMe	Me
.2422	.NHCH2CH=CMe2	E	Ħ	Æ	Н	Н	OMe	OEt	но	Н	Н	Н	OEt	0	-CH2CH=CMe2

Table 324

		r	r	r								;	(100-110 110	
.NHCH2CH=CMe2	Н	П	Ξ	=	Ξ	OMe	OEt	ОН	=	H	E	SE	٥	CH2CH=CO18	
	=	Ξ	=	=	Me	Me	Me	Ξ	=	=	=	OMe	Ę	.CII2CH=CMe2	
-OMe	=	Ξ	王	=	Me	Me	Me	Н	H	H	Н	ОМе	H	-(CH ₂) ₂ CHMe ₂	
-OMe	Ξ	Ξ	H	Ξ	Me	Me	Me	Н	Н	H	H	ОМе	NMe	Me	
OM6.	=	=	=	Ξ	Me	Me	Me	Н	Н	Н	Ξ	ОМе	0	.CH2CH=CMe2	
OMO	=	=	=	=	S M	Me	Me	=	11	=	II	OMe	٥	-CII2CH=CCI2	
OMo	=	=	Ξ	=	Me	Me	Me	Н	H	H	Œ	Н	H	-CH2CH=CMe2	
- WO	: =	=	Ξ	Ξ	Me	Me	Me	Н	Н	H	F	Н	HZ	·(CH ₂) ₂ CHMe ₂	
OMe	Ξ	Ξ	Ξ	Ξ	Me	Me	Me	Н	H	н	Ŀ	H	NMe	Me	_
OMe	Ξ :	Ξ	=	H	Me	Me	Me	н	Н	Н	দ	Н	0	-CH2CH=CMe2	
OMe	Ξ	Ξ	H	H	Me	Me	Me	H	Н	н	Ē,	Н	0	-CH2CH=CCl2	
OMe	Ξ	Ξ	Ξ	Ξ	Me	₩ We	Me	Н	Н	Н	Н	OEt	Η̈́	-CH2CH=CMe2	
OMe	=	Ξ	Ξ	Ξ	Me	Me	Me	Н	Н	Н	Ξ	OEt	H	-(CH ₂) ₂ CHMe ₂	- Т
OMe	Ξ.	Ξ	Ξ	Ξ	Me	Me	Me	H	Н	н	H	OEt	NMe	Me	_
OMe	Ξ.	H	Ξ	H	Me	Me	Me	Н	Н	H	H	SE SE	0	-CH2CH=CMe2	
O.O.	H	H	E	H	Me	Me	Me	Н	Ξ	H	Ħ	OEt	0	.CH2CH=CCl2	- i-
OMe	Ħ	Ħ	H	H	Н	Me	OMe	ОН	Н	H	픠	OMe	HN	-CH2CH=CMe3	Т
OMe	H	王	H	Н	H	Me	OMe	Н0	H	н	Ħ	OMe	HZ	·(CH ₂) ₂ CHMe ₂	
OMe.	Ξ	Ξ	H	Ħ	H	Me	ОМе	ЮН	田	Ħ	Ξ	OMe	NMe	Me	1
.OMe	H	H	Н	H	Н	Me	OMe	НО	표	H	Ξ	ОМе	0	-CH2CH=CMe2	$\neg \neg$
.OMe	Н	Н	H	Н	H	Me	OMe	핑	픠	프	H	OMe	0	-CH2CH=CCl2	\neg
		Me M	Mc	Me H H H H H H H H H H H H H H H H H H H	Me	Mc	Me	Mc	Mc	Mc	Mc	Mac	Mac	Mac	Name

Table 325

5	-CH2CH=CMe2	-(CH2)2CHMe2	Me	-CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	-CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	.CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	.CH2CH=CMe2	CH2CH=CCl2	-CH2CH=CMe2
10	HN	HN.	NMe	0	0	HN	. HN	NMe	0	0	HN	HN	NMe	0		HN	. HN	NMe	0	0	HN
		2	z				_	Z			_	_	Z			_	_	Z			Z
15	H	Н	H	н	Ħ	OEt	OEt	OBt	OEt	OEt	OMe	ОМе	OMe	OMe	OMe	H	H	Ξ	Ħ	Ξ	OEt
	G ₂ ,	H	F	F	대	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	দ	দ	F	F	स	Ħ
20	H	Н	Н	Н	Н	Н	Н	н	Н	H	Н	Н	Н	Н	Н	H	Н	Н	Н	Н	H
	Ξ	H	Н	Н	Н	н	Н	Н	Н	Н	н	Н	Н	H	Н	Н	H	Н	Н	Н	H
25	НО	ЮН	OH	ОН	ОН	011	ОН	ОН	ОН	ОН	ОН	ОН	ОН	НО	ОН	ЮН	ОН	ОН	ОН	ЮН	НО
	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	ОМе	ОМе	ОМе	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me
30	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Н	Н	Н	Н	H.	Н	Н	Н	Н	Н	H
	I	H	=	Ħ	П	П	Н	Н	Н	Н	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me
35	=	Ξ	Ξ	Н	н	=	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	Н	H
	=	Ή	Ξ	Ξ	Ξ	=	Н	Н	Н	Н	Ξ	H	Н	Н	Н	Н	Н	Н	Н	H	<u> </u>
	Ξ	H	Ξ	Ξ	Ξ	=	н	H	Н	Н	н	Н	Н	Н	Н	Н	Н	Н	Н	Н	H
40	H	Ξ	Ξ	H	Ξ	=	Ξ	H	Н	Н	П	H	H	Н	Н	Н	Н	Н	Н	Н	H
45	.OMe	.OMe	-OMe	-OMe	-OMe	.OMe	.OMe	.OMe	.ОМе	-OMe	.OMe	.OMe	OMe.	-OMe	-OMe	-OMe	-OMe	-OMe	-OMe	.OMe	-OMe
	1	2	5		20	-		-	~	-	-	- 2	<u></u>	7	60	6			- 2	3	_

' Table 326

Γ	22	$ \top $	62	20	E3	2	T	8	2	8	8		62		65	25		62	2	62	
	-(CH ₂) ₂ CHMe ₂		CH2CH=CMe2	CH2CH=CCl2	.CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂		-CH2CH=CMe2	CH2CH=CCl2	-CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂	g)	.CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH ₂)2CHMe ₂		CH2CH=CMe2	CH2CH=CCl2	CH2CH=CMe2	-(CH ₂) ₂ CHMe ₂
	H2)2C	Me	ECH CH	TCH TCH	CH	H ₂)2C	Me	12CH	딩	ECH CH	H2)2(Me	I CH	H,CH	12CH	H2)2(β	12CH	H ₂ CH	12CH	H ₂) ₂ (
İ	9		D.	Ş	Ş	위		Ş	Ş	Ö	9		5	ᅙ	Ö	위		ij	Ş	ġ	9
	Ħ	NMe	0	0	HN	HN	NMe	0	0	HN	HN	NMe	0	0	HN	HN	NMe	0	0	HN	HN
ŀ	3	25	25	35	g q	Je Je	Je Je	OMe	Je Je		H				OEt	OEt	OEt	OEt	OEt	OMe	ОМе
	Ö	OEt	OEt	OEt	OMe	OMe	OMe	Ó	OMe	王		H	H	H	ō	ō	ō	ō	ō	ō	ō
	H		프	=	픠	Ξ	프	H	H	Œ,	Œ	Œ,	F	Œ,	Ŧ	Ŧ	H	Ξ	Ħ	Ξ	Ξ
Ī	Ξ	Ξ	H	H	포	Ξ	H	Н	H	H	Н	Н	Н	H	Н	H	Н	Н	Н	H	H
	=	Ξ	П	Ξ	Н	Ξ	Н	Н	н	Ή	Н	Н	Н	Н	Н	Н	Н	H	Н	Н	Н
f	3	OH	ОН	HO	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	ЮН	ОН
.		0	0	_	N	2	2	2	2.	2	2	2	_	Z							
	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	OEt	OEt
	=	Н	Ξ	П	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	OMe	OMe
	Me	Me	Mc	Me	Ξ	=	H	Н	Н	H	Н	Н	=	H	Н	Н	Н	Ξ	Н	H	Н
	=	Н	Ξ	Ξ	Ξ	Ξ	Ξ	Н	Н	Н	Н	H	=	Ξ	H	H	H	H	Ξ	H	H
	Н	Ħ	Ξ	Ŧ	Ξ	Ξ	H	H	Н	Н	Ξ	Ξ	Ξ	王	Ξ	Ξ	王	王	王	二	H
	Ξ	Ξ	Ξ	=	Ξ	=	표	Ξ	Ξ	Ξ	표	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	크	H	Ξ	Ξ
	=	Ξ	=	=	Ξ	=	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	=	Ξ	田	Ξ	Ξ	ΙΞ	三	Ξ	프
	Me	Me	l a	8	Me	Me	Me	Me	Me	We We	Me	Me	Ž	Me	Me	Me	Me	A P	Me	Me	Me
	Ş	Ş	OMe	OMe	Ó	Į Ś	Ó	þ	Ó	-OMe	Ó	į ē	į į	į	Ó	جَ	٥	Ō	į ē	Ó	Ó
							_														
	1.2465	1.9466	1.9467	1.2468	1.9469	1.2470	1.2471	1.2472	1-2473	1.2474	1.9475	1.9476	1.0477	1.9478	1.2479	1.2480	1.9481	1.9489	1.9483	1.2484	1.2485
]	-	: :	:	:	:]_:	-													13

Table 327

10	Me	-CH2CH=CMe2	.CH2CH=CCI2	-CH2CH=CMe2	·(CH2)2CHMe2	Me	·CH2CH=CMe2	-CH2CH=CCl2	-CH2CH=CMe2	-(CH2)2CHMe2	Me	-CH2CH=CMe2	·CH2CH=CCl2
	NMe	0	0	HN	H	NMe	0	0	HN	HN	NMe	0	0
15	OMe	ОМе	ОМе	Н	Н	н	Н	Н	OEt	OEt	OEt	OEt	OEt
	H	Н	Н	Œ	Œ	Ъ	Œ,	F	н	Н	H	н	Ħ
20	Н	H	Н	н	Н	Н	Н	H	н	Н	Н	н	H
	Н	11	Н	H	Н	н	H	Н	Н	Н	Н	Н	H
25	ОН	011	ОН	ОН	ОН	ОН	OH	ОН	ОН	ОН	ОН	НО	НО
	OEt	OEt	OEt	OEt	OEt	OEt	OEt	OEt	OEt	OEt	OEt	OEt	OEt
30	OMe	OMe	OMe	OMe	OMe	OMe	ОМе	OMe	ОМе	ОМе	ОМе	ОМе	OMe
	H	Ξ	Н	Н	Н	11	Н	Н	Н	H	Н	н	н
35	Ξ	=	H	Ħ	五	=	Н	H	н	Н	H	Ħ	H
	Ξ	Ξ	H	H	Ξ	=	Н	H	Н	Н	Н	H	H
	Ξ	Ξ	Ξ	Ξ	Ξ	Ξ	Н	Ξ	H	H	Н	Н	Н
40	Ξ	=	Ξ	=	프	=	H	H	H	H	Н	Н	H
4 5	OMe	.OMe	-OMe	OMe.	.OMe	-OMe	OMe.	-OMe	OMe.	.OMe	.OMe	-OMe	-OMe
50	1.2486	1-2487	1.2488	1-2489	1-2490	1-2491	1.2492	I-2493	1.2494	1.2495	1.2496	1.2497	1.2498

55 [0167] In the above tables, "-OCH₂O-*" and "*" mean that they taken together form a ring.

Experiment 1 Suppressive effect on a mitogenic activity of mouse splenocytes in vitro

[0168] In 96-well microtiter plate 5 x 10^5 C3H/HeN mouse splenocytes suspended in 0.1 ml of 10 % fetal bovine serum-fortified RPMI 1640 medium containing 2 mM of sodium bicarbonate, 50 units/ml of penicillin, 50 µg/ml of streptomycin and 5 x 10^{-5} M of 2-mercaptoethanol were added. Then, 5 µg/ml of Concanavalin A (Con A) or 10 µg/ml of lipopolysaccharide (LPS) as a mitogen and the compound of a pre-determined concentration of the present invention were added to each well so that a final volume of each well reached 0.2 ml. Each compound of the present invention was dissolved in dimethylsulfoxide (DMSO) and diluted with the above RPMI 1640 medium to adjust the final concentration of 100 ng/ml or less. The splenocytes in the 96-well microtiter plate were cultivated at 37 °C for 3 days in an incubator keeping the humidity 100 %, carbon dioxide 5 % and air 95 %. Then, 25 µl of 6 mg/ml MTT [3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide] (Sigma) was added to the each well and cultivated at 37 °C for 4 hours under the same conditions. After the cultivation, 50 µl of 0.02 N hydrochloric acid in 20 % sodium dodecyl sulfate (SDS) was added to formazan generated and left at 37 °C for 24 hours for dissolving formazan. An absorption intensity (OD) of formazan generated in proportion to the number of living cells was measured with an immunoreader (InterMed) equipped with a 570 nm filter (The Journal of Immunological Method, 65, 55-63, 1983). The 50 % inhibitory concentration of a cell proliferation (IC 50) was calculated from a correlation between the concentration of the compound of the present invention and the absorption intensity.

Experiment 2 Anti-proliferative activity on EL4 cells

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[0169] In 96-well microtiter plate $4 \times 10^4/0.1$ ml of mouse thymoma strain EL4 cells were added and 0.1 ml of the compound of the present invention was added to the mixture so that the concentration was in the range of 0-5,000 ng/ml. After the cultivation for 3 days, the IC_{50} was calculated by the MTT method as described in Experiment 1. [0170] The results are shown in Tables 328-329.

Table 328

[ConA	LPS	EL-4
Compound	IC ₅₀	IC ₅₀	IC50
	(ng/ml)	(ng/ml)	(ng/ml)
I-1	0.86	1.92	8.56
I-9	<20	<20	<20
I-12	1.3	2.8	46.2
I-22	5.62	4.26	6.2
I-35	19.5	39.4	140
I-40	6.1	16.5	37.4
I-41	0.73	1.74	4.89
I-46	10.6	23.9	67.5
I-49	8.89	16.2	31.7
I-50	3.83	9.2	11.9
I-51	· 6.6	14.7	70.0
I-59	8.5	22.4	140
I-62	29.2	25	23.4
I-63	13	27	16
I-66	0.22	0.35	0.48
I-71	4.56	14.2	31.2
I-101	0.8	0.5	1.8
I-103	3.4	3.7	4.6
I-104	3.0	3.1	4.8
I-106	0.6	0.4	2.7
I-107	0.6	0.7	12
I-121	0.8	1.2	0.8
I-163	<20	<20	<20
I-173	<20	<20	<20
I-175	<20	29.4	<20
I-187	12.0	25.1	36.2
I-211	<20	<20	<20
I-248	<10	<10	312
I-250	<10	<10	88.3
I-251	<10	<10	97.4

I-255	<20	<20	<20
I-256	<20	28.7	310
I-275	6.34	13.5	100
I-276	1.8	3.1	200
I-299	5.53	7.85	13.6
I-301	7.06	11.0	15.8
I-360	<20	<20	99.8
I-361	<20	<20	124
I-418	255	497	>10000
I-427	255	497	>10000
I-457	<20	<20	205
I-466	<20	<20	46
I-484	14.7	32.2	91.4
I-513	6.89	11.1	61.8
I-525	0.76	1.11	5.0
I-639	4.59	6.25	50
I-661	0.67	1.28	50
I-739	18.8	20.7	430
I-742	10	20	45.2
I-758	6.78	9.63	55.1
I-773	8.45	12.6	92.9
I-797	1.75	3.71	26.5
I-834	36	46	226
I-839	1.48	1.87	20.7
I-840	5.31	6.94	31.9
I-878	14.1	27.4	194
I-880	23.0	41.1	105
I-892	<0.2	<0.2	1.41
I-893	0.49	1.05	7.06

Table 329

Compo	ConA IC ₅₀	LPS IC ₅₀	EL-4 IC ₅₀
und	(ng/ml)	(ng/ml)	(ng/ml)
I-907	23.4	44.5	82.7
I-908	0.45	0.86	3.50
I-909	<20	<20	20
I-931	2.93	5.76	4.37
I-934	16.1	22.2	52.7
I-943	2.97	4.89	46.8
I-962	12.1	16.3	20.4
I-970	<20	<20	50.3
I-976	17.7	34.2	330
I-981	14.9	27.1	>100
I-982	2.0	3.75	55.3
I-988	0.2	0.31	1.23
I-993	5.10	7.54	13.8
1-995	20.9	25.2	49.2
I-1006	8.66	12.3	33.0
I-1007	8.05	10.4	13.1
I-1017	9.74	16.7	72.9
I-1031	<20	21.2	41.7
I-1040	1.80	5.31	1.85
I-1043	2.19	3.27	9.70
I-1058	21.2	30.2	48.8
I-1066	3.91	4.87	20.6
I-1095	6.90	9.57	34.2
I-1103	4.7	6.9	31.4
I-1107	5.8	9.1	34.1
I-1115	<20	<20	<20
I-1121	3.12	9.0	18.6
I-1123	0.80	2.00	3.9
I-1124	94	272	>10000
I-1126	79	234	>10000
I-1127	44	111	412
I-1128	5.00	11.4	26.0
I-1135	1.00	2.70	11.7

I-1160	10.6	14.1	97.4
I-1161	2.4	4.2	33.2
I-1162	0.65	1.95	30.9
I-1167	0.08	0.23	8.1
I-1168	0.26	0.54	12.5
I-1171	0.63	0.64	27.5
I-1172	13.1	19.4	>100
I-1173	16.4	31.1	>100
I-1177	12.2	20.8	47.2
I-1191	0.16	0.66	22.8
I-1193	1.46	5.3	50
I-1203	14.1	>100	43.5
I-1212	12.87	24.2	85.0
I-1217	<20	<20	<20
I-1227	197	423	>10000
I-1229	5.95	8.05	20.4
I-1230	12.0	15.3	5.22
I-1232	3.77	4.93	15.1
I-1240	2.50	3.34	11.8
I-1248	25.9	36.8	118
I-1250	0.68	1.35	2.90
I-1251	6.30	10.7	27.8
I-1263	<20	<20	29.8
I-1271	0.10	0.32	1.66
I-1274	0.33	1.38	1.44
I-1276	<20	31.3	105
I-1277	<20	<20	<20
I-1278	<20	<20	41.7
I-1284	<20	<20	<20
I-1286	<20	<20	<20
I-1289	<20	<20	<20
I-1290	<20	<20	27.3
I-1295	<20	<20	<20
I-1296	<20	<20	39.7

[0171] As shown in the above, the compound of the present invention has immunosuppressive and anti-allergic states of effects.

Experiment 3 Suppressive effect on the antibody production against bovine γ globulin (BGG)

[0172] On an immunizing day and 7 days after, 50 μg of BGG was subcutaneously inoculated to backs of BALB/c mice (male, 6-8 weeks old) for inducing an immune reaction. After the compound of the present invention was dissolved or suspended in N, N-dimethylacetoamide, the mixture was diluted with miglyol 812 neutral oil. A proper volume of the compound was orally administered (p.o.) to mice every day from the next day of the immunizing. A two hundredth weight to body weight of miglyol was administered to mice in a control group. After 21 days, blood was drawn from each mouse and a serum was separated. BGG-specific IgE in a serum was measured by the sandwich ELISA method using a BGG-coating plate. The suppressive rate of IgE production was calculated from the dilution rate of the serum which has the same absorption intensity as that of the control group for judging the effect of the compound of the present invention. The results are shown in Table 330.

Table 330

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Compound	Dose (mg/kg)	Suppressive rate of anti- gen-specific lgE (%)
I-525	100	>95
I-915	100	>99
I-892	5	>99
I-963	50	>99
I-1031	100	>99
l-1093	100	>99

Experiment 4 Suppressive effect on the IgE production against ovalbumin (OVA)

30 1) Animals

[0173] BALB/c mice (female, 8-10 weeks old) and Wistar rats (female, 8-10 weeks old) which were bought from Japan SLC, Inc. (Shizuoka) were used.

Immunizing method

[0174] BALB/c mice were immunized by an intraperitoneal administration of 0.2 ml suspension of 2 µg of ovalbumin (OVA) and 2 mg of aluminium hydroxide gel in physiological saline. After 10 days, blood was drawn from hearts, sera were separated and stocked at -40 °C till the measurement of an IgE antibody titer.

3) Compounds

[0175] After the compound of the present invention was dissolved or suspended in N, N-dimethylacetoamide, the mixture was diluted 20 times with miglyol 812 neutral oil. The obtained solution was orally administered to mice at 0.1 ml per mouse. The administration was continued for 10 days from the immunizing day to the day before drawing blood. IPD-1151-T (a compound described in Jpn. Pharmacol. (1993) 61, 31-39) and a compound No. 36 (a compound 36 described in J. Med. Chem. (1997) 40: 395-407) were examined as controls by the same method.

4) Measurement of anti-OVA IgE antibody titer (PCA titer)

[0176] The samples 2-fold diluted with physiological saline were prepared from the obtained mouse serum and each $50~\mu$ l of the solution was intradermally injected to backs of Wistar rats which previously hair cut. After 24 hours, a passive cutaneous anaphylaxis reaction (PCA) was induced by an intravenous injection of 0.5 ml of physiological saline containing 1 mg of OVA and 5 mg of Evans' blue dye. After 30 minutes, the rats were sacrificed and the highest dilution rate of the serum giving bluing with a diameter of more than 5 mm was recorded as the PCA titer. For example, when a serum is positive for the PCA reaction till 2^7 times dilution, the anti-OVA IgE antibody titer of the mouse is defined as 7. The results are shown in Table 331.

Table 331

Compound	Dose (mg/kg)	PCA Titer
1-484	40	<0
I-839	40	2.4**
I-851	40	1.8**
I-892	40	<0
1-893	40	2.5**
I-908	40	3.4**
1-915	40	<0
1-925	40	1**
1-928	40	<0
I-948	40	2.6**
1-957	40	4.5**
1-962	40	<0
1-963	40	3.6**
1-988	40	0.8**
l-1031	40	4.4**
I-1043	40	4.8**
I-1066	40	<0
I-1072	40	0.8**
I-1095	40	<0
I-1123	40	2.4**
I-1135	40	4.8**
I-1167	40	4.4**
I-1171	40	<0
I-1177	40	3.6**
I-1229	40	<0
I-1232	40	1.8**
1-1242	40	2.8**
I-1258	40	1.2**
I-1271	40	<0
IPD-1151-T	50	9.8
No.36	10	10.4

** • • • P<0.01 vs vehicle

[0177] The PCA ticers of mice in a group to which any compound was not administered were 9-12.

IPD-1151-T · · ·

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[0179] As shown in the above, the compound of the present invention has a suppressive effect on the antibody production.

Experiment 5 Suppressive effect on the antibody production of human lymphocytes

1. Experimental method

1) Human peripheral blood

[0180] Human peripheral blood was drawn from healthy male adults by plastic syringes filled with heparin (final concentration 1.5%). Lymphocytes were collected immediately after blood was drawn.

2) Medium

[0181] RPMI medium (Nissui Pharmaceutical Co., Ltd.) containing 10% fetal bovine serum (HyClone Lab.) inactivated at 56 °C for 30 minutes, penicillin (100 units/ml) and streptomycin (100 μg/ml) (GIBCO) was used.

3) Compounds

[0182] After the compound (I-839) of the present invention was dissolved in dimethylsulfoxide (Nakaraitesk) at 2 μ g/ml, the solution was diluted with the medium to adjust a final concentration to be 0.01 pg/ml - 10 μ g/ml. The compound No. 36 was examined as a control by the same method.

4) Human lymphocytes

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[0183] Human peripheral blood was stratified in a tube filled with Ficoll-Hypaque mixture solution (Dainippon Pharmaceutical Co., Ltd. (Osaka), Mono-poly resolving medium) at the same volume and centrifuged at 300 x g at 15 °C for 30 minutes to obtain a lymphocytes layer. After the collected cell suspension was washed with sterile Hanks' solution (Nissui Pharmaceutical Co., Ltd.) by centrifugation, sterile distilled water was added to the suspension. After 30 seconds, twice-concentrated Hanks' solution of which amount is equal to the water was added for removal of contaminating erythrocytes. Lymphocytes which were filtered by a nylon mesh and washed by centrifugation were used for experiments as human lymphocytes.

5) Induction of the IgE antibody production by stimulation of B cells

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[0184] In 96-well cultivating plate (Sumitomo bakelite) the lymphocytes were inoculated 2 x 10^5 cells per well, and the compound, anti-human CD 40 antigen (Pharmingen, 2 μ g/ml), human recombinant interleukin-4 (IL-4) (Genzyme, 0.1 μ g/ml) and human recombinant interleukin-10 (IL-10) (Genzyme, 0.2 μ g/ml) were added and cultivated at 37 °C under

5% of CO₂ (0.2 ml/well). After the cultivation for 10 days, the amount of antibody in a supernatant was quantified by ELISA method.

Quantification of the IgE antibody

[0185] A commercial kit MESACUP IgE test (Medical & Biological Laboratories Co., Ltd.) was used for the quantification of the IgE. The experiment followed an instruction manual and was carried out in triplicate to calculate the average.

7) Quantification of the IgG and IgM antibodies

[0186] ELISA method was used for the quantification. In 96-well plate (Nunc) 50 μ l of 1 μ g/ml F(ab')₂ Goat Anti-human IgG + A + M (H+L) (ZYMED Laboratories) was added and the plate was coated at 4 °C overnight. The plate was washed twice with 0.05 % Tween/PBS (PBST) solution and 100 μ l of 0.5% gelatin/PBST was added for blocking at room temperature for 2 hours. After washing three times with PBST, 100 μ l of a sample diluted with PBS or 100 μ l of human Plasma IgG standard solution or IgM standard solution (BioPur AG, Switzerland) of a pre-determined concentration was added and incubated at room temperature for 1 hour. After washing three times with PBST, 100 μ l of a peroxydase-labeled anti-human IgG antibody or anti-human IgM antibody (Southern Biotechnology, Birmingham) which was diluted two thousandth with PBS was added and incubated at room temperature for 1 hour. After washing four times with PBST, 100 μ l of a substrate, o-phenylenediamine dihydrochloride, was added for color development. After 30 minutes, the reaction was terminated by addition of 50 μ l of 2 N HCl, and the absorption at 492 nm was measured with a microplate reader and the amount of the IgG and IgM was calculated from a standard curve of a standard solution.

2. Results

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[0187] The results are shown in Figures 1 and 2. The compound (I-839) of the present invention has a selective suppressive effect on the IgE antibody production and the intensity was 2,000 times or more of that of the IgG production and 30,000 times or more of that of the IgM. The suppressive effects of the typical compounds on the antibody production are shown in Table 332.

Table 332

Compound	IC ₅₀ (ng/ml)		
	lgE	IgG	lgM
1-839	<0.00001	0.027	0.37
I-892	<0.00001	<0.00001	>1
I-121	<0.0001	<0.0001	>1
1-988	<0.00001	<0.00001	>1
1-893	<0.00001	<0.0001	>1

Experiment 6 Suppressive effect on antibody production of mouse spleen lymphocytes

- 1. Experimental method
- 1) Animals
- [0188] BALB/c (nu/nu) mice were bought from Japan SLC, Inc. (Shizuoka) and 7 weeks old-male mice here used.
 - 2) Medium
 - [0189] RPMI medium (Nissui Pharmaceutical Co., Ltd.) containing 10 % fetal bovine serum (HyClone Lab.) inactivated at 56 °C for 30 minutes, penicillin (100 units/ml) and streptomycin (100 µg/ml) (GIBCO) was used for experiments.

3) Compounds

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[0190] Each of the compounds was dissolved in dimethylsulfoxide (Nakaraitesk) at 2 µg/ml and diluted with the medium to adjust a final concentration to 0.1 pg/ml - 10 µg/ml.

4) Mouse spleen lymphocytes

[0191] A spleen of mouse was taken out and put in a cultivating schale which was filled with Hanks' solution. The spleen was crushed and the cells were pushed out from the organ and filtered through a metal mesh (200 mesh). After the collected cell suspension was washed by centrifugation with sterile Hanks' solution (Nissui Pharmaceutical Co., Ltd.), sterile distilled water was added. After 30 seconds, an equal amount of twice-concentrated Hanks' solution was added for removal of contaminating erythrocytes. The cell suspension, filtered by a nylon mesh and washed by centrifugation, were used as mouse spleen lymphocytes for experiments.

5 5) Induction of the IgE antibody production by the B cell stimulation

[0192] In 96-well cultivating plate (Sumitomo Bakelite Company Limited) mouse spleen lymphocytes were inoculated 2×10^5 cells per well. The compound of the present invention, lipopolysaccharide (DIFCO Lab., 2 μ g/ml) and mouse recombinant interleukin-4 (IL-4) (Genzyme, 50 ng/ml) were added to the well and cultivated at 37 °C under 5 % CO₂ (0.2 ml/well). After the cultivation for 10 days, the amount of the antibody in a supernatant was quantified by ELISA method.

- 6) Quantification of the IgE antibody
- 25 [0193] A commercial mouse IgE EIA kit (Yamasa Shoyu Co., Ltd.) was used for the quantification of the IgE. The experiment followed an instruction manual and was carried out in triplicate to calculate the average.
 - 7) Quantification of the IgG1, IgG2a and IgM antibodies
- [0194] In 96-well plate 50 μl of 10 μg/ml Goat Anti-Mouse Ig (IgM+G+A, H+L) (Southern Biotechnology, Birmingham) was added and the plate was coated at 4 °C overnight. After the plate was washed twice with a PBST solution, 100 μl of 0.5 % gelatin/PBST was added and the plate was blocked at room temperature for 2 hours. After washing three times with PBST, 100 μl of culture supernatant which was diluted with PBS or 100 μl of an antibody standard solution (Mouse IgG1 standard, Mouse IgG2a standard, Mouse IgM standard, BETHYL Laboratories) of a pre-determined concentration was added and incubated for 1 hour. After washing three times with PBST, 100 μl of diluted solution of alkalinephosphatase-labeled anti-mouse IgG1, IgG2a or IgM antibody (Southern Biotechnology, Birmingham) was added and incubated at room temperature for 1 hour. After washing four times with PBST, a substrate, p-nitrophenyl phosphate disodium, was added, and after 30 minutes-incubation period, after 5 N-NaOH was added to stop the reaction. The absorption at 405 nm was measured with a microplate reader, and the amount of the antibody was calculated from the standard curve. For the dilution of the mouse sample and the standard solution was used 10 % FCS/PBS.

2. Results

[0195] The results are shown in Figure 3. The figure shows that the compound (I-967) has a suppressive effect on the IgG1, IgG2a and IgM antibodies production only at 1000 ng/ml or more but has a dose-dependent suppressive effect on the IgE production at 0.01 ng/ml or more. In Table 333 the suppressive effects of the representative compounds on the IgE, IgM, IgG1 and IgG2a production are shown.

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Table 333

Compound	IC ₅₀ (ng/ml)			
	lgE	lgG1	lgG2a	lgM
1-73	0.044	2600	4900	4200
I-963	0.00026	510	3600	3500
I-967	0.1	3500	3600	>10000

Experiment 7 Suppressive effect on bronchial inflammatory cell infiltration by inhalation of antigen.

- 1. Experimental method
- 1) Animals

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[0196] BALB/c mice bought from Japan SLC, Inc. (Shizuoka) (female, 8-11 weeks old) were used for experiments.

2) Sensitizing and challenge of antigen

[0197] For immunizing, 0.2 ml of a suspension of 2 μg of ovalbumin (OVA; Grade V, SIGMA) and 2 mg of aluminium hydroxide gel in physiological saline was intraperitoneally injected. After 2 weeks, 0.2 ml of a solution of 2 μg of OVA in physiological saline was intraperitoneally injected for a booster. After 1 week, each of mice was put in a nebulizing container (an airtight polycarbonate container, 24.5 cm in inner diameter and 20 cm in effective inner height, equipped with 12 cylindrical tubes of 4.8 cm in inner diameter and 12 cm in height) and made inhale a solution of 5 % ovalbumin (Grade III, SIGMA) in physiological saline for 20 minutes with an ultrasonic neblizer (Omron Tateisi Elec-Tronics co., NE-U12) for the challenge of antigen.

3) Administration of the compound of the present invention

[0198] The compound (I-963) of the present invention was dissolved in N, N-dimethylacetoamide (Nakaraitesk) and diluted one twentieth with miglyol 812 neutral oil (Mitsuba Trading Co., Ltd.) and the solution was orally administered to mice at 40 mg/kg. The administration was continued for 9 days from the booster day to the day before broncho-alveolar lavage.

4) Broncho-alveolar lavage (BAL)

[0199] After 48 hours of the challenge of antigen, the mice were exsanguinated from hearts under ether anesthetic, and the trachea was then cannulated. 0.3 ml of PBS were injected into the lungs and collected, and reinjected four times more (total 1.5 ml).

5) Measurement of the total cell number in BAL solution and classification of inflammatory cells

[0200] After calculation of the total cell number by coloring of a part of BAL solution with Türk solution, cells in BAL solution were put on a slide glass with cytospin (SHANDON) for May-Grünwald-Giemsa (MERCK) staining. Under a microscope, 500 cells were classified to a macrophage, an eosinophil, a neutrophil and a lymphocyte and a proportion of each type of the cells was calculated. The number of each type of the cells was calculated by a multiplication of its proportion and the total cell number.

40 2. Results

[0201] The results are shown in Figure 4. As shown in the figure, the compound (I-963) of the present invention significantly suppresses increasing number of eosinophils and neutrophils by the challenge of antigen.

45 Experiment 8 Suppressive effect on the cytokine production of a mouse T cell strain EL-4

[0202] In 48-well plate were added 2 x 10^5 mouse T cell strain EL-4 which were suspended in 0.2 ml of 1 % fetal bovine serum-added RPMI 1640 medium (2 mM of sodium bicarbonate, 50 units/ml of penicillin, 50 μ g/ml of streptomycin and 5 x 10^{-5} M of 2-mercaptoethanol were added) and the compound of the present invention of a pre-determined concentration. TPA was added as a cell stimulater at a final concentration of 10 ng/ml to adjust a final volume of each well to 0.4 ml. Each compound of the present invention was dissolved in DMSO and diluted with the above RPMI 1640 medium, and then for added at a final concentration of 100 ng/ml or less. The cells in the 48-well plate were cultivated in an incubator keeping the humidity 100 %, carbon dioxide 5 % and air 95 % at 37 °C for 24 hours to collect a supernatant of each well. The amount of IL-2, IL-4 and IL-5 released in the medium of each well were measured with the ELISA kit (Amersham K. K.) to be taken as an index of the cytokine production of the cells. TPA free group (-TPA) was used as a control. The results are shown in Table 334.

Table 334

	IC ₅₀ (ng/ml)		
Compound	IL-2	IL-4	IL-5
I-4	>500	14	120
I-37	>500	7	110
I-39	1300	7	130
I-70	>2000	0.2	1000
I-73	500	20	15
I-83	>10000	140	1000
I-128	>10000	140	450
I-148	>10000	100	11000
I-157	>10000	170	>10000
I-189	>10000	100	10000
I-190	>100	7	10
I-202	>2000	<20	<20
I-209	>200	14	12
I-213	>1000	25	23
I-218	>1000	4.8	30
I-220	>1000	150	720
I-223	1000	16	45
I-226	880	17	300
I-228	>1000	21	30
I-229	>1000	42	80
I-230	>1000	13	20
I-231	>500	9.6	9.2
I-233	>1000	12	3.8
I-237	>100	17	100

I-238	>1000	35	>1000
I-239	>1000	54	900
I-242	>1000	100	880
I-243	>500	63	>550
I-279	>1000	38	90
I-282	>500	<5	130
I-292	>1000	72	600
I-296	>1000	70	47
I-301	500	<10	120
I-302	>1000	25	280
I-305	>1000	10	340
I-307	>1000	52	23
I-309	>500	29	10
I-318	>1000	68	58
I-323	>1000	230	24
I-368	>1000	72	380
I-375	>1000	200	>1000
I-379	>1000	88	>1000
I-386	>1000	68	40
I-387	>1000	75	40
I-390	>1000	200	160
I-392	>1000	50	>1000
I-395	>1000	1-10	>1000
I-403	>1000	13	>1000
I-720	>500	6	110

Formulation Example 1

45 [0203]

The compound of the present invention

Starch

Lactose

Crystalline cellulose

Polyvinyl alcohol

Distilled water

Calcium stearate

15 mg

15 mg

15 mg

15 mg

30 ml

30 ml

[0204] After all of the above ingredients except for calcium stearate were uniformly mixed, the mixture was crushed and granulated, and dried to obtain a suitable size of granules. After calcium stearate was added to the granules, tablets were formed by compression molding.

5 Industrial Applicability

[0205] As indicated in the above experiments, the compound of the present invention has a potent immunosuppressive and/or anti-allergic activity. The compound of the present invention and a substance which has the same activity as the compound of the present invention are very useful for a selective suppressor of the IgE production, an immunosuppressive agent and/or an anti-allergic agent.

Claims

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- A selective suppressor of the IgE production comprising a compound which suppresses the IgE production in a
 process from a differentiation of a mature B cell into an antibody-producing cell to the production of an antibody and
 which does not suppress or weakly suppresses the production of IgG, IgM and/or IgA which are produced at the
 same time.
- 2. The selective suppressor of the IgE production claimed in claim 1, wherein a suppression of the IgE production is 10,000 times or more that of the IgG, IgM and/or IgA production.
- 3. The selective suppressor of the IgE production claimed in claim 1 which does not suppress 50 % or more of the IgG, IgM and/or IgA production even at 10,000 times of the concentration at which 50 % of the IgE production is suppressed as compared with that in the absence of the suppressor.
- 4. The selective suppressor of the IgE production claimed in claim 1, 2 or 3 which suppresses 90 % or more of the IgE production, as compared with that without administration of the suppressor, at which dosage the suppressor does not suppress or weakly suppresses the IgM, IgG and/or IgA production when the suppressor is administered to a mammal sensitized by an allergen.
- 5. The selective suppressor of the IgE production claimed in claim 1, 2, 3 or 4 which suppresses infiltration of an inflammatory cell to tissue.
- The selective suppressor of the IgE production claimed in claim 5 wherein the inflammatory cell is an eosinophil and/or a neutrophile.
- 7. A compound of the formula (I):

$$R^{1} \xrightarrow{R^{2}} R^{3} R^{6} \xrightarrow{R^{7} R^{10}} R^{11} \times Y \qquad (I)$$

$$R^{4} R^{5} R^{8} R^{9} R^{12} R^{13}$$

wherein R¹, R², R³, R⁴, R⁵, R⁶, Rⁿ, RՑ, RՑ, R¹0, R¹1, R¹2 and R¹3 are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkylthio, optionally substituted lower alkylthio, optionally substituted lower alkylsulfonyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is $-O_-$, $-CH_2$ -, $-NR^{14}$ - wherein R^{14} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or $-S(O)p_-$ wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted,

excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen, compounds wherein all of R⁶, R⁷, R⁸ and R⁹ are halogen and compounds wherein all of R²-R¹³ are hydrogen, halogen or cyano,

provided that R^1 is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R^2 , R^3 , R^4 , R^5 and R^{12} are hydrogen, or R^{13} is not hydrogen or halogen when R^6 , R^7 , R^8 and R^9 are all simultaneously hydrogen, and further provided that R^1 is not methyl or acetyloxy, R^{13} is not hydrogen, optionally substituted lower alkoxycarbonyl or optionally substituted carbamoyl, or - X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen, and excluding a compound of the formula (I'):

wherein R^{1'} is hydrogen or hydroxy and R^{13'} is hydroxy or methoxy, pharmaceutically acceptable salt, hydrate or prodrug thereof.

- 8. The compound claimed in claim 7 wherein R¹ is hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl, formyl, optionally substituted amino, lower alkylsulfinyl, acyloxy, nitro, cyano, optionally substituted sulfamoyl or heterocyclyl,
 - R² is hydrogen, hydroxy, halogen, optionally substituted lower alkyl or optionally substituted lower alkylsulfonyloxy.
 - R3 is hydrogen, hydroxy, halogen or optionally substituted lower alkoxy,
 - R⁴ is hydrogen, optionally substituted lower alkyl, halogen, optionally substituted lower alkoxy, nitro or optionally substituted amino,
 - R⁵ is hydrogen, optionally substituted lower alkoxy, lower alkoxycarbonyl or carboxy,
 - R⁶ is hydrogen, halogen, optionally substituted lower alkyl, carboxy, lower alkoxycarbonyl, nitro, formyl, amino or lower alkylsulfonyloxy,
 - R⁷ and R⁸ are each independently hydrogen, halogen, optionally substituted lower alkyl, optionally substituted lower alkoxy, formyl or optionally substituted amino,
 - R⁹ is hydrogen, hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, optionally substituted carbamoyl or optionally substituted amino.
 - R¹⁰ is hydrogen or lower alkoxy,
 - R¹¹ is hydrogen, halogen, optionally substituted lower alkyl, carboxy, lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, nitro or amino,
 - R12 is hydrogen

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- R¹³ is hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyloxy, optionally substituted acyloxy, optionally substituted lower alkylsulfonyloxy, formyl, nitro or optionally substituted amino,
- Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl,

optionally substituted acyl or optionally substituted cycloalkenyl and Y may be optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is - O- or $-NR^{14}$ -.

and R^1 and R^2 , R^1 and R^4 , R^8 and R^9 , R^{11} and -X-Y, or R^1 and -X-Y taken together may form a 5- or 6-membered ring which contains one or more of O or NR^{15} wherein R^{15} is the same as defined in claim 7 and which may optionally be substituted,

pharmaceutically acceptable salt, hydrate or prodrug thereof.

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- 9. The compound, pharmaceutically acceptable salt or hydrate thereof claimed in claim 7 or 8 which has an immunosuppressive effect.
- The pharmaceutical composition comprising the compound, pharmaceutically acceptable salt, hydrate or prodrug thereof claimed in claim 7 or 8.
- 15. 11. An immunosuppressor comprising the compound, pharmaceutically acceptable salt, hydrate or prodrug thereof claimed in claim 7 or 8.
 - 12. An anti-allergic agent comprising the compound, pharmaceutically acceptable salt, hydrate or prodrug thereof claimed in claim 7 or 8.
 - 13. An immunosuppressor comprising a compound of the formula (I"):

$$R^{1}$$
 R^{5} R^{8} R^{9} R^{12} R^{13} R^{13}

wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl optionally substituted, lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkylthio, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfonyloxy, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is - CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is - O-or -NR¹⁴-,

 R^1 and R^4 , R^1 and R^2 , R^2 and R^3 , R^4 and R^5 , R^6 and R^7 , R^8 and R^9 , R^{10} and R^{11} , R^{12} and R^{13} , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5-or 6-membered ring which may contain one or more of O, S or NR^{15} wherein R^{15} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or optionally substituted arylsulfonyl and which may optionally be substituted, excluding a compound of the formula (I'):

wherein $R^{1'}$ is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy, pharmaceutically acceptable salt, hydrate or prodrug thereof.

- 14. An anti-allergic agent comprising the compound of the formula (I"), pharmaceutically acceptable salt, hydrate or prodrug thereof according to claim 13.
- 15. A process for producing a compound of the formula (I""):

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$$R^{2}$$
 R^{3} R^{6} R^{7} R^{10} R^{11} $X-Y$ (I''') R^{4} R^{5} R^{8} R^{9} R^{12} R^{13}

wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkylthio, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfonyloxy, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(o)p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyn, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted cycloalkenyl, optionally substituted cycloalkenyl, optionally substituted acyl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is - CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is - O- or -NR¹⁴-,

 R^1 and R^4 , R^1 and R^2 , R^2 and R^3 , R^4 and R^5 , R^6 and R^7 , R^8 and R^9 , R^{10} and R^{11} , R^{12} and R^{13} , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5-or 6-membered ring which may contain one or more of O, S or NR^{15} wherein R^{15} is hydrogen, optionally substituted lower alkyl, optionally substituted arylsulfonyl, and which may optionally be substituted,

excluding a compound wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen, compounds wherein all of R⁶, R⁷, R⁸ and R⁹ are halogen and compounds wherein all of R²-R¹³ are hydrogen, halogen or cyano,

provided that R¹ is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R², R³, R⁴, R⁵ and R¹² are hydrogen or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are all simultaneously hydrogen,

and further provided that R^1 is not methyl or acetyloxy, R^{13} is not hydrogen, optionally substituted lower alkoxycarbonyl or optionally substituted carbamoyl or - X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen, pharmaceutically acceptable salt or hydrate thereof, which comprises reacting a compound of the formula (II):

$$Z \xrightarrow{R^{10}} R^{11}$$
 $X-Y \quad (II)$

with a compound of the formula (III):

wherein, in the formulas (II) and (III), R^1 - R^{13} , X and Y are the same as defined in claim 7, either of A and Z is dihydroxyborane, di(lower)alkoxyborane, di(lower)alkylborane,

$$B-$$
 or $B-$

and the other is halogen or $-OSO_2(C_qF_{2q+1})$ - wherein q is an integer of 0 to 4, or reacting a compound of the formula (II'):

$$R^{1} \xrightarrow{R^{2}} Z \qquad (II')$$

with a compound of the formula (III'):

$$A = \begin{bmatrix} R^{6} & R^{7} & R^{10} & R^{11} \\ R^{8} & R^{9} & R^{12} & R^{13} \end{bmatrix} \times (III')$$

wherein, in the formulas (II') and (III'), R^1 - R^{13} , X and Y are the same as defined in claim 7 and A and Z are the same as defined in the above formulas (II) and (III).

16. The process for producing the compound of the formula (I"), pharmaceutically acceptable salt or hydrate thereof according to claim 15 comprising the reaction of a compound of the formula (IV):

$$A^{1} \xrightarrow{R^{8} \quad R^{7}} A^{2} \quad (IV)$$

with a compound of the formula (V):

$$\begin{array}{c|c}
R^2 & R^3 \\
R^1 & Z^1 & (\vee) \\
R^4 & R^5
\end{array}$$

wherein, in the formulas (IV) and (V), R¹ - R⁹ are the same as defined in the formula (I) in claim 7, Z¹ is the same as Z defined in the formula (II) in claim 15, A¹ and A² are each independently the same as A defined in the formula (III) in claim 15, and the reactivity of A¹ is higher than or equal to that of A², followed by the reaction with a compound of the formula (VI):

$$Z^{2} \xrightarrow{R^{10}} R^{11}$$

$$Z^{2} \xrightarrow{X-Y} (VI)$$

wherein R^{10} - R^{13} , X and Y are the same as defined in the formula (I) in claim 7 and Z^2 is the same as Z defined in the above formula (II).

17. The process for producing the compound of the formula (I"), pharmaceutically acceptable salt or hydrate thereof according to claim 15 comprising the reaction of a compound of the formula (IV'):

$$A^{1} \xrightarrow{\mathbb{R}^{8}} A^{2} \quad (IV')$$

wherein R^6 - R^9 is the same as defined in the formula (I) in claim 7, A^1 and A^2 are each independently the same as A defined in the formula (III) in claim 15, and the reactivity of A^2 is higher than or equal to that of A^1 , with a compound of the formula (VI) in claim 16, followed by the reaction with a compound of the formula (V) in claim 16.

Figure 1

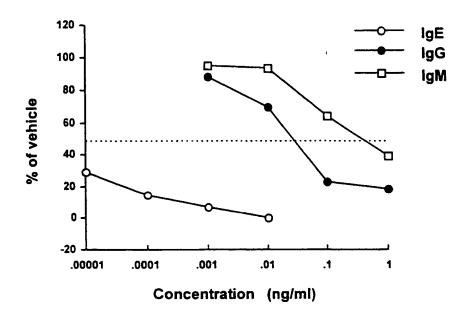


Figure 2

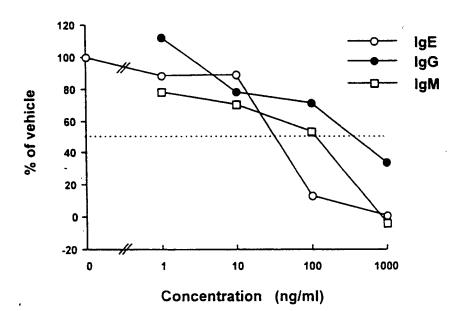


Figure 3

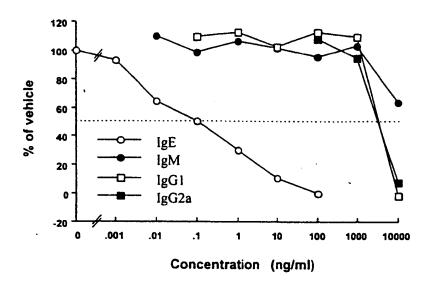
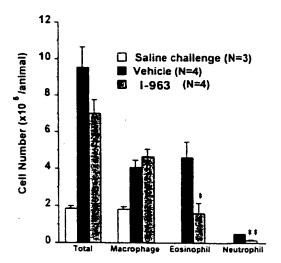


Figure 4



* P < 0.05 **P < 0.01 vs Vehicle (Student's t-test)

INTERNATIONAL SEARCH REPORT International application No. PCT/JP97/02635 CLASSIFICATION OF SUBJECT MATTER Int. C1⁶ C07C15/14, C07C25/18, C07C43/20, C07C47/575, C07C65/24, C07C69/734, C07C69/78, C07C205/38, C07C217/80, C07C233/80, According to International Patent Classification (IPC) or to both national classification and IPC FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) Int. C16 C07C15/14, C07C25/18, C07C43/20, C07C47/575, C07C65/24, C07C69/734, C07C69/78, C07C205/38, C07C217/80, C07C233/80, Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CA(STN), REGISTRY(STN) C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. JP, 5-25145, A (Mochida Pharmaceutical Co., X Ltd.), February 2, 1993 (02. 02. 93), Page 4, left column, lines 2 to 11; example & WO, 93/1815, Al & EP, 548370, Al Brune, K. 'IPD-1151T: A Prototype Drug for Ice Antibody Synthesis Modulation', Agents and Actions Supplements, 1991, Vol. 34, p. 369-378 7 - 10 Tringali, C. et al. 'Previously unreported p-Х terphenyl derivatives with anti-biotic 15 - 17 Υ 11 - 14 properties from the fruiting bodies of Sarcodon leucopus (Basidiomycetes).', Can. J. Chem., 1987, Vol. 65, p. 2369-2372 7 - 9 Х Kallitsis, J.K., 'Synthesis and Characterization of Soluble Aromatic Polyesters 15 - 17 Y 10 - 14Containing Oligophenyl Moieties in the Main Chain.', Macromolecules, 1994, Vol. 27, p. 4509-4515 X Further documents are listed in the continuation of Box C. See patent family annex. later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document referring to an oral disclosure, use, exhibition or other document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report October 28, 1997 (28. 10. 97) October 15, 1997 (15. 10. 97) Name and mailing address of the ISA/ Authorized officer Japanese Patent Office

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X Y A	Wagner, Gabriele et al. 'Ferrocene der containing anthracene linked by spacer J. Organomet. Chem., June 1996, Vol. 5 p. 225-232	s',	7, 9 15 - 17 8, 10-14
Y	Akira Suzuki, Norio Miyaura, "Reaction Organoboron Compounds in the Presence Transition Metal Catalysts (in Japanes The Journal of Synthetic Organic Chemi Japan, 1993, Vol. 51, No. 11, pages 91	of e)", stry,	15 - 17
A	JP, 6-507987, A (Merck Patent GmbH.), September 8, 1994 (08. 09. 94), Example 3 & WO, 93/22397, Al & EP, 591	508, Al	7-9, 15-17
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A. (Continuation) CLASSIFICATION OF SUBJECT MATTER

C07C235/46, C07C251/34, C07C275/28, C07C281/02, C07C281/06, C07C311/22, C07C317/16, C07C323/10, C07D213/30, C07D215/14, C07D233/64, 103, C07D257/04, C07D295/22, C07D303/26, C07D309/22, C07D317/54, C07D319/20, C07D493/05, C07D271/10, C07D333/28, A61K31/09, A61K31/10, A61K31/11, A61K31/135, A61K31/15, A61K31/155, A61K31/165, A61K31/17, A61K31/18, A61K31/19, A61K31/195, A61K31/215, A61K31/235, A61K31/24, A61K31/255, A61K31/27, A61K31/275, A61K31/335, A61K31/34, A61K31/35, A61K31/36, A61K31/38, A61K31/41, A61K31/415, A61K31/44, A61K31/47, A61K31/35, A61K31/47, A61K31/535, A61K31/60

B. (Continuation) FIELDS SEARCHED

C07C235/46, C07C251/34, C07C275/28, C07C281/02, C07C281/06, C07C311/22, C07C317/16, C07C323/10, C07D213/30, C07D215/14, C07D233/64, 103, C07D257/04, C07D295/22, C07D303/26, C07D309/22, C07D317/54, C07D319/20, C07D493/05, C07D271/10, C07D333/28, A61K31/09, A61K31/10, A61K31/11, A61K31/135, A61K31/15, A61K31/15, A61K31/15, A61K31/15, A61K31/15, A61K31/15, A61K31/25, A61K31/25, A61K31/27, A61K31/215, A61K31/235, A61K31/24, A61K31/255, A61K31/27, A61K31/275, A61K31/335, A61K31/34, A61K31/35, A61K31/36, A61K31/38, A61K31/41, A61K31/415, A61K31/44, A61K31/47, A61K31/535, A61K31/60

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